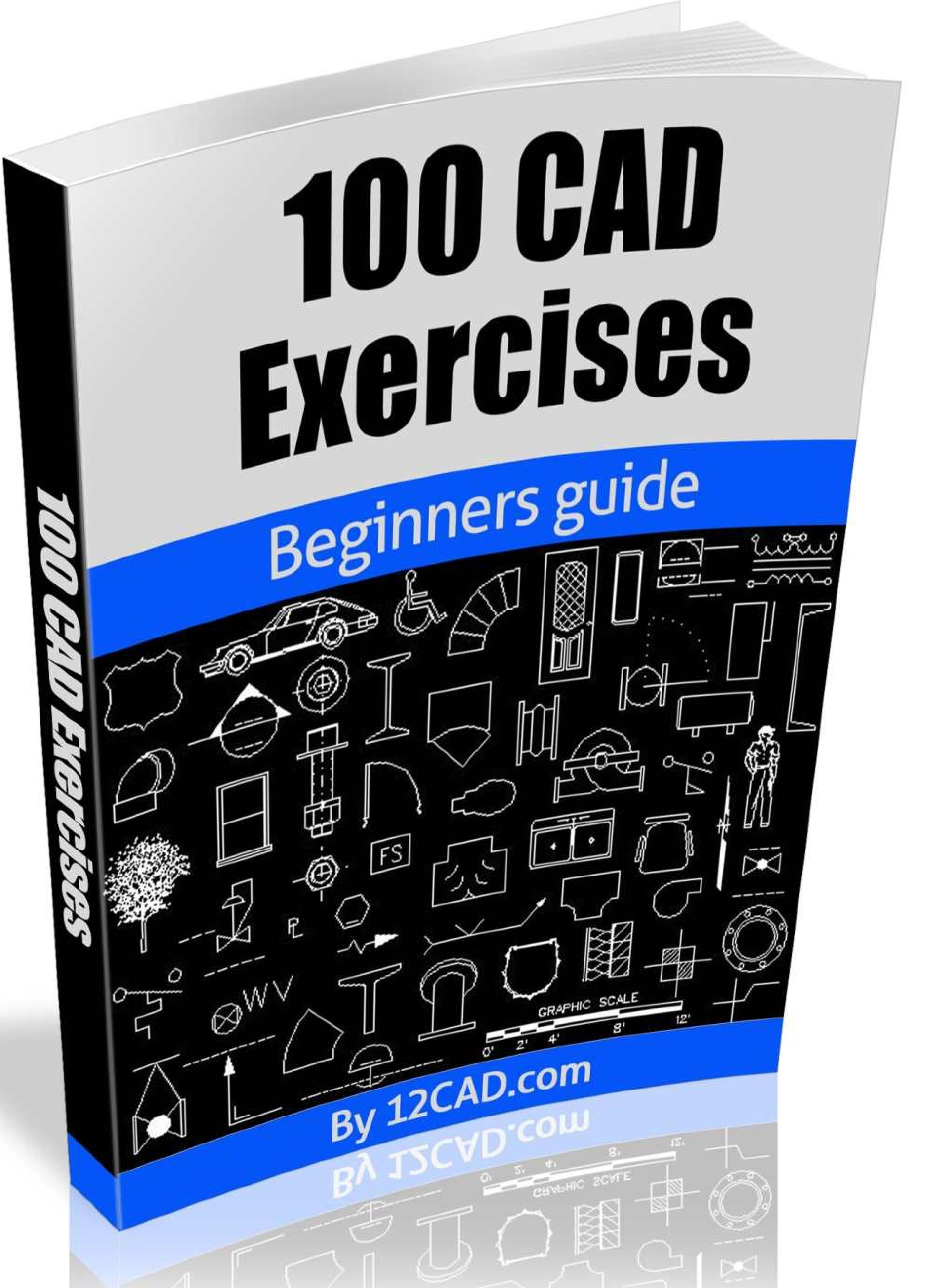

100 CAD Exercises
Beginners guide
100 CAD Exercises
FS
GRAPHIC SCALE
0' 2' 4' 8' 12'
By 12CAD.com

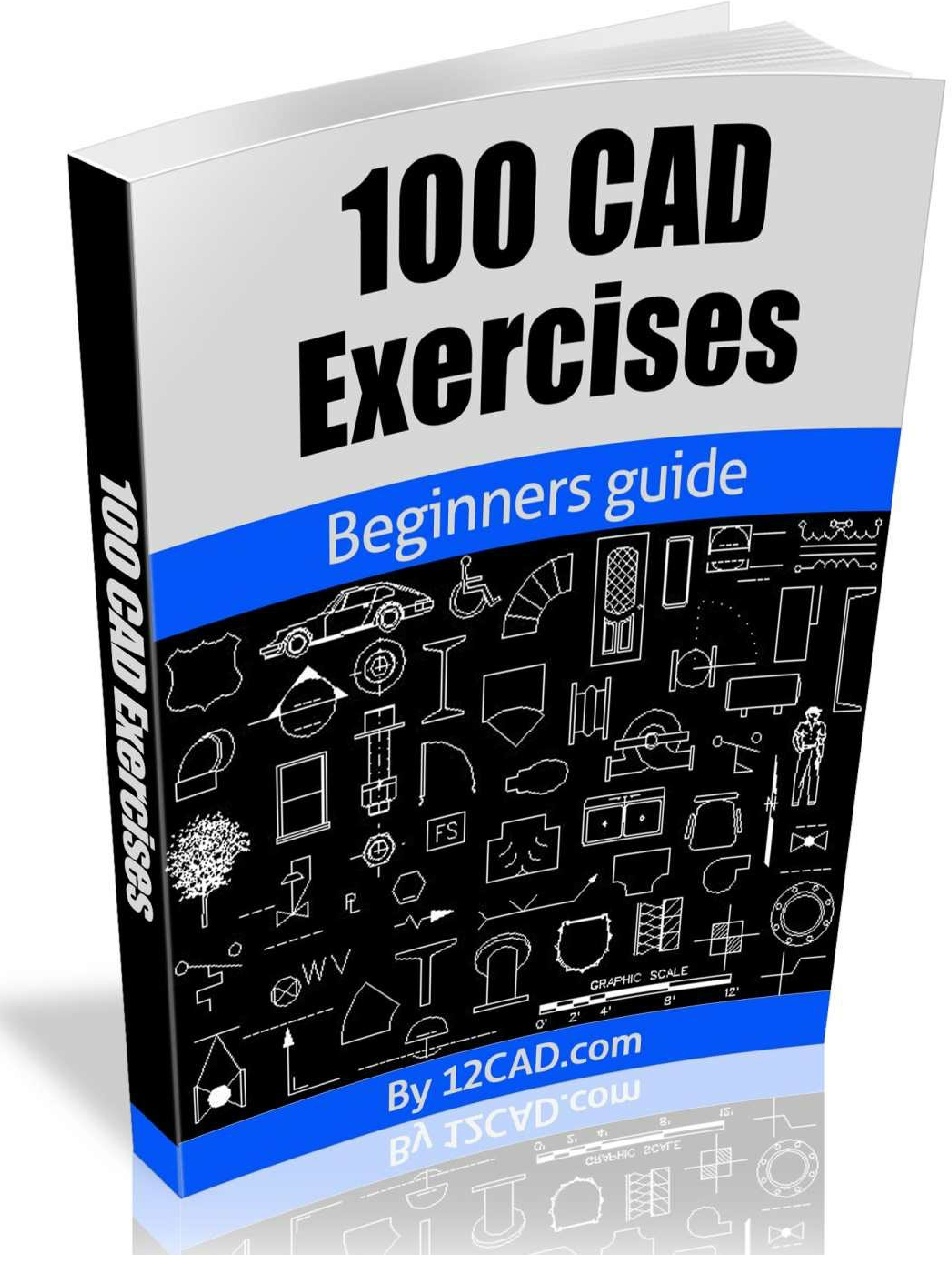
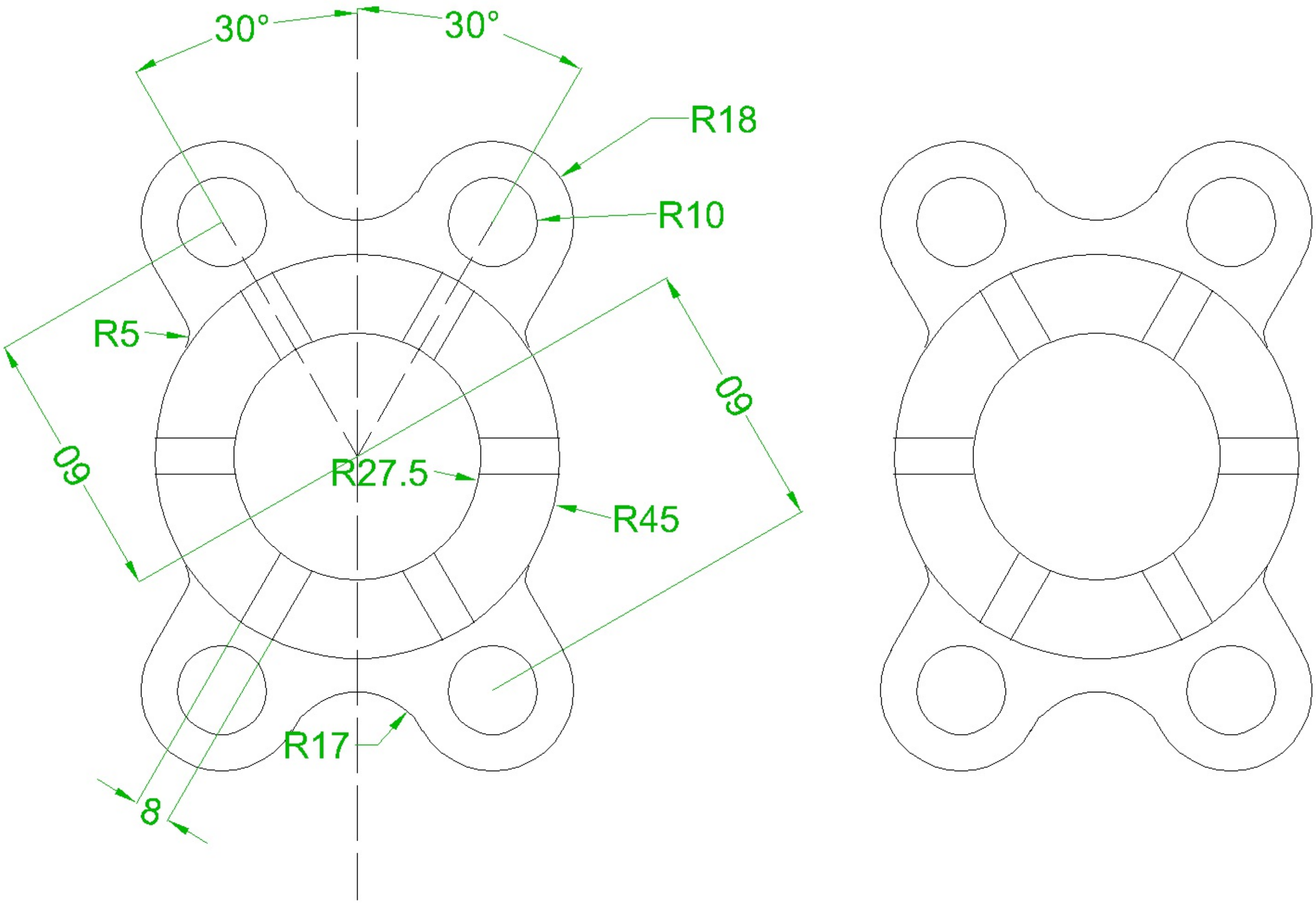
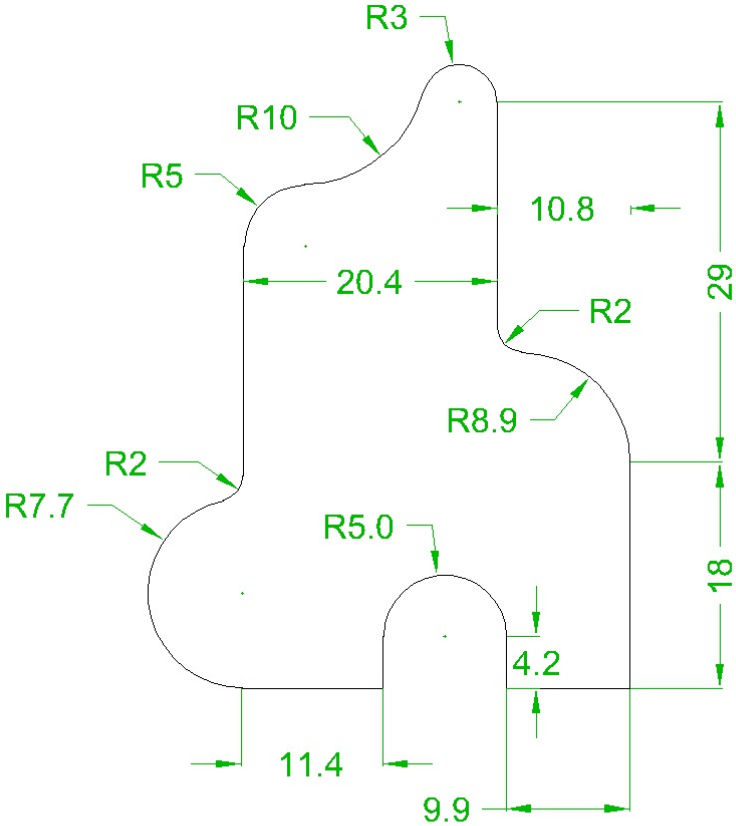

100 CAD Exercises
Beginners guide
100 CAD Exercises
FS
WV
GRAPHIC SCALE
0' 2' 4' 8' 12'
By 12CAD.com

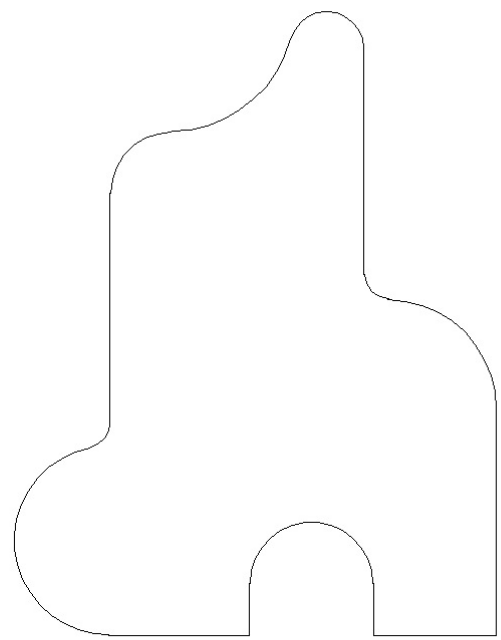
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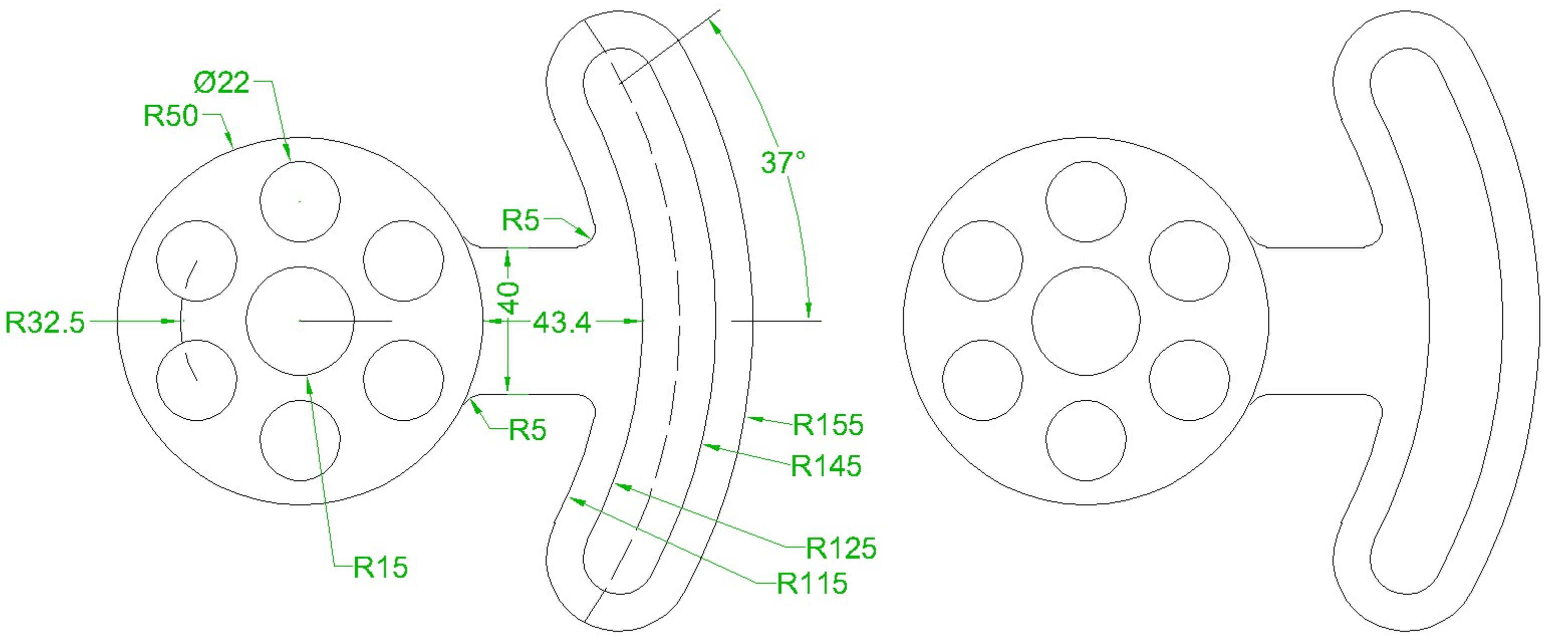
2D Exercises


30°
30°
R18
R10
R5
60
60
R27.5
R45
R17
8

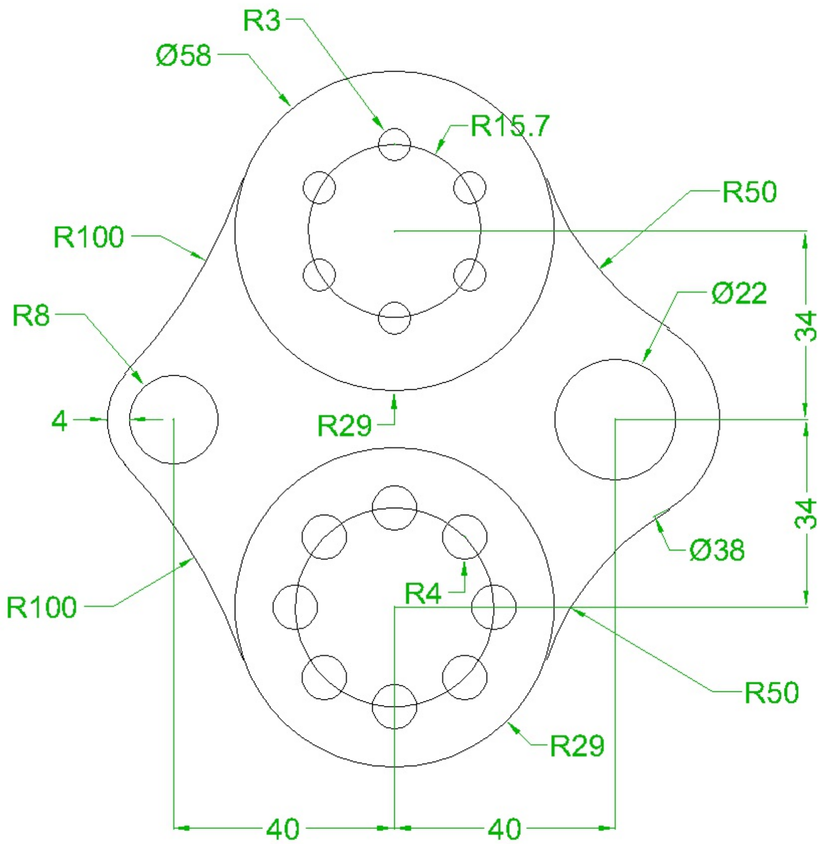


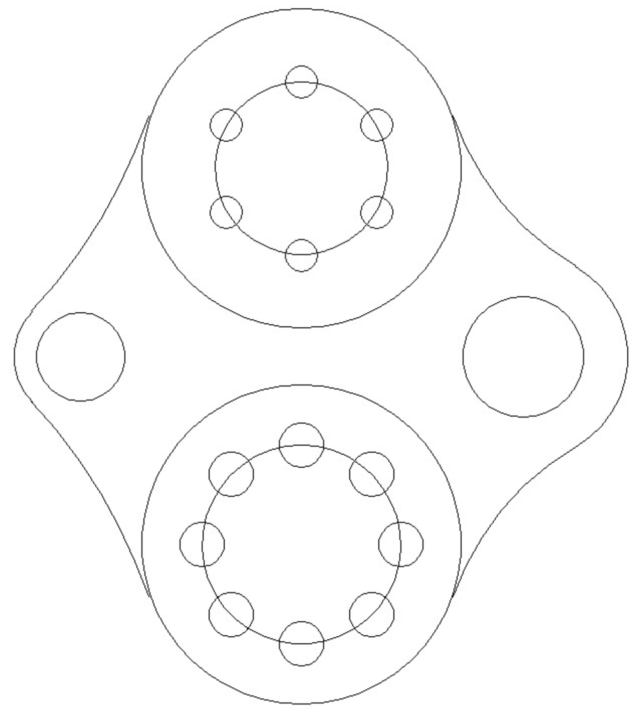
R3
R10
R5
10.8
20.4
29
R2
R8.9
R2
R7.7
R5.0
18
4.2
11.4
9.9

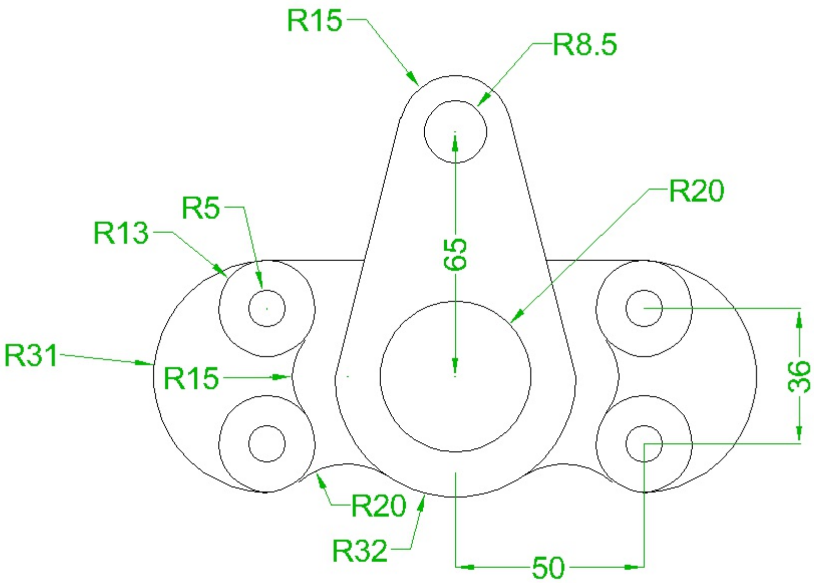


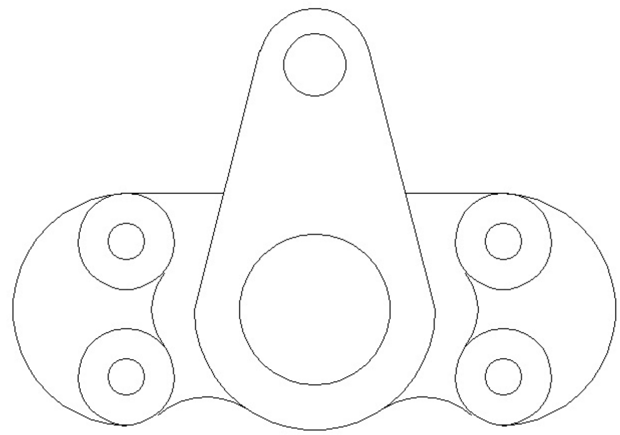


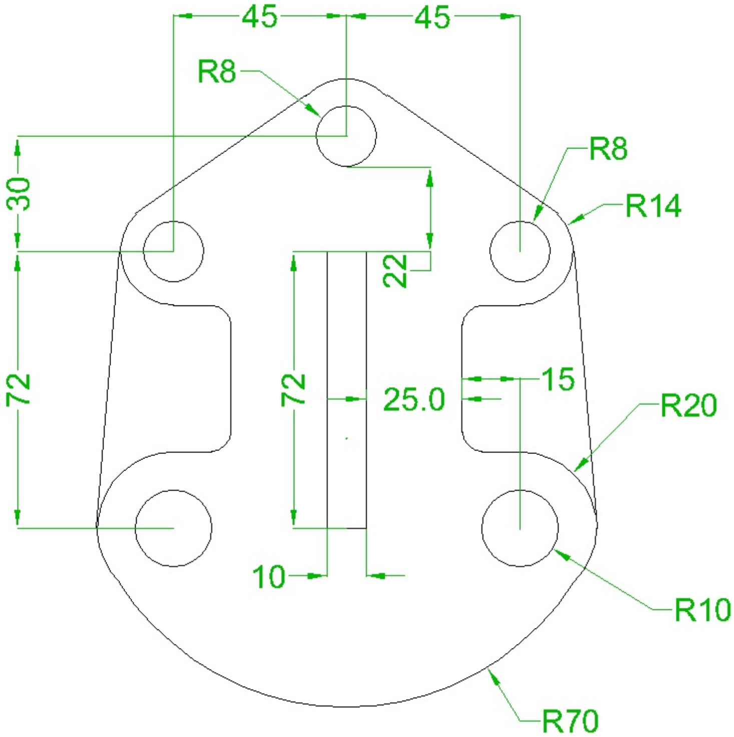
Ø22
R50
R32.5
R15
R5
40
43.4
R5
37°
R155
R145
R125
R115

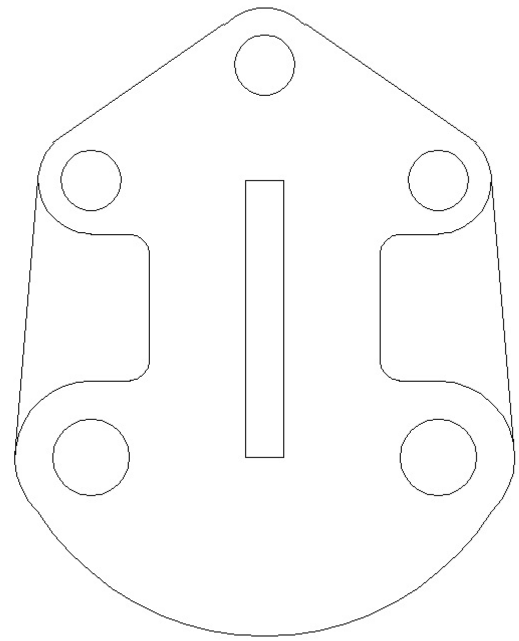

R3
Ø58
R15.7
R50
R100
Ø22
R8
34
4
R29
34
Ø38
R100
R4
R50
R29
40
40

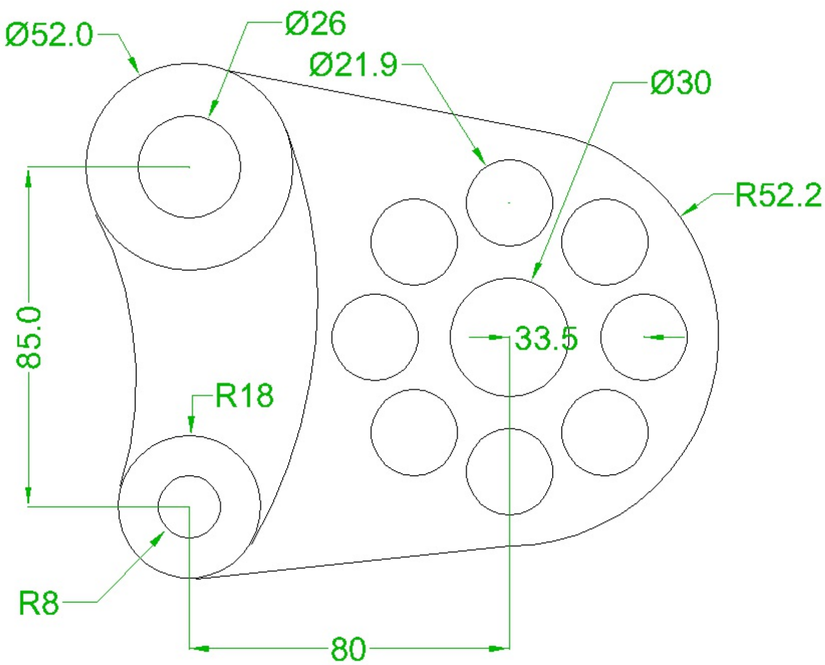



R15
R8.5
R20
R5
R13
65
R31
R15
36
R20
R32
50

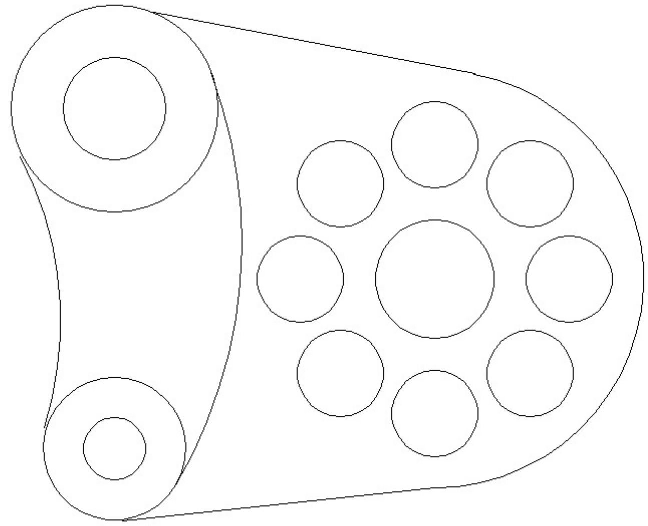


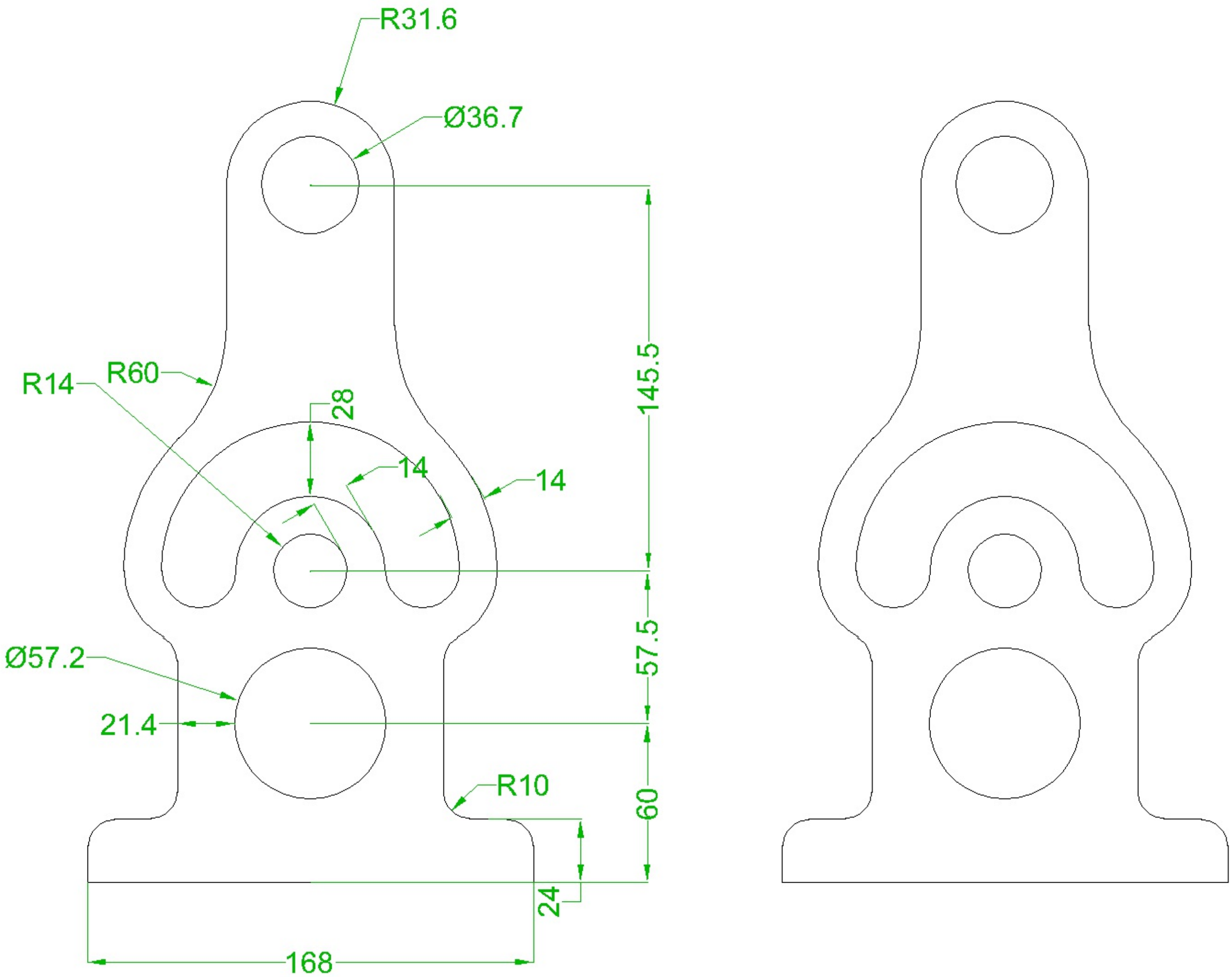

45
45
R8
R8
R14
30
22
72
72
15
25.0
R20
10
R10
R70

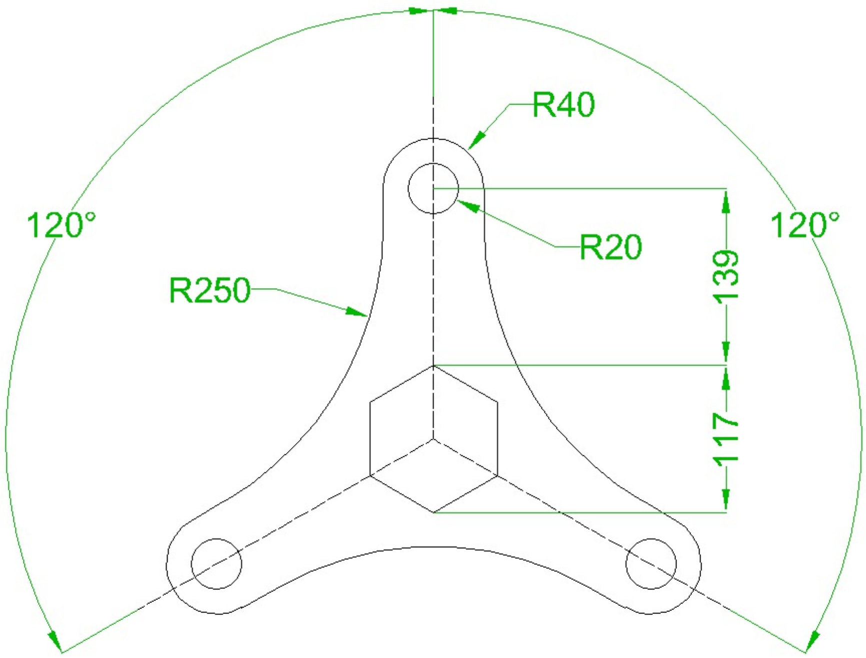


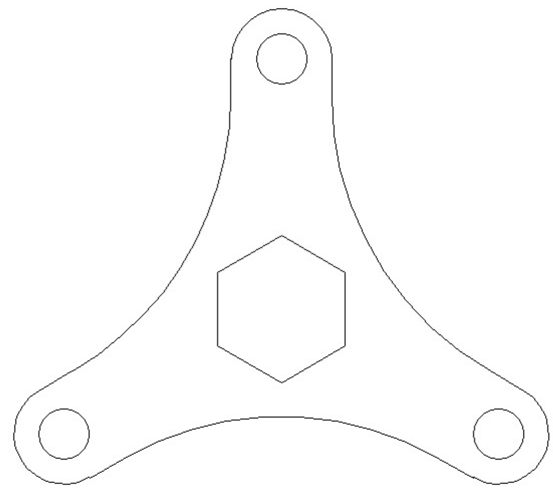


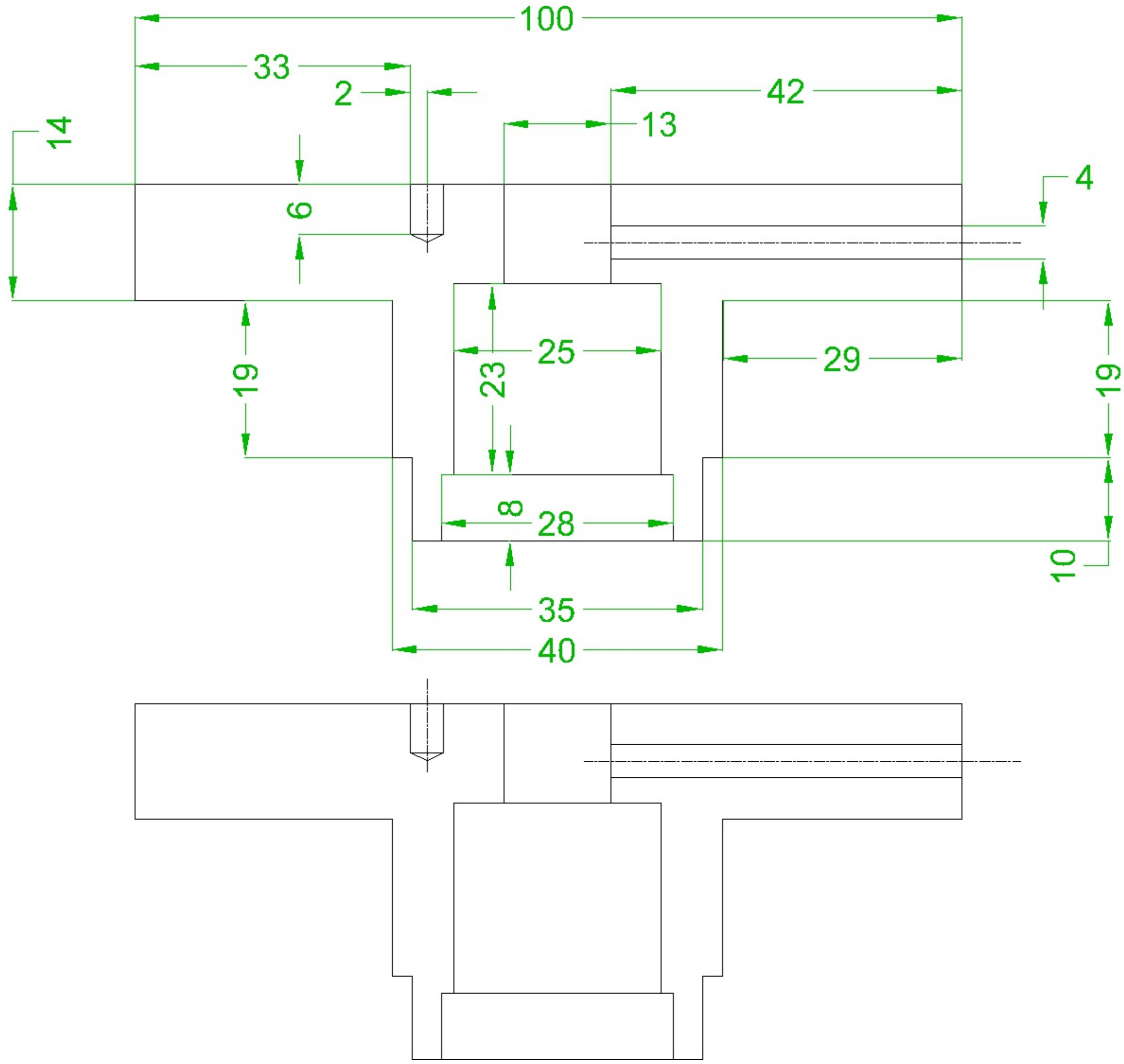
Ø52.0
Ø26
Ø21.9
Ø30
R52.2
85.0
33.5
R18
R8
80

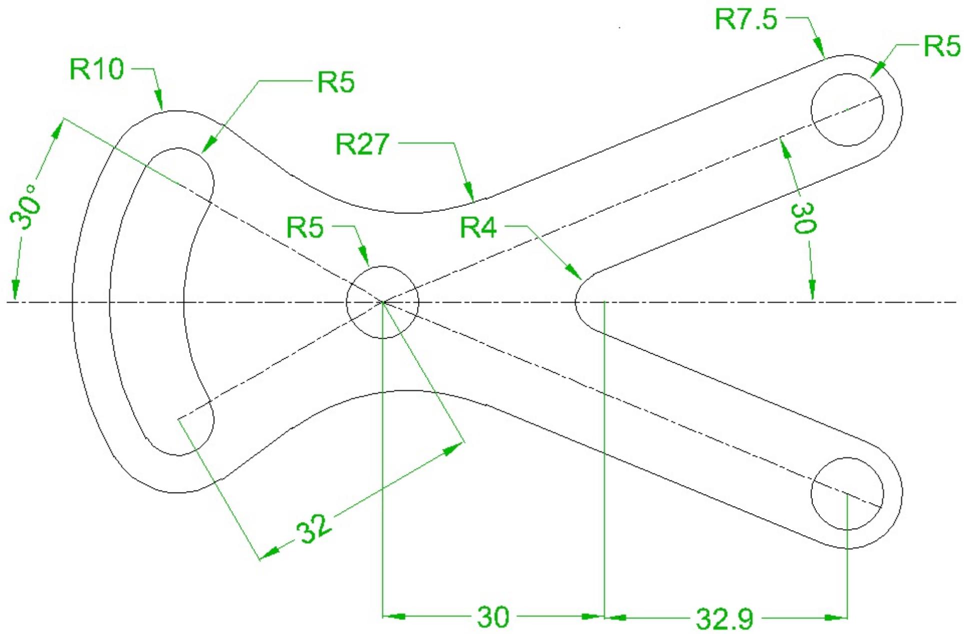


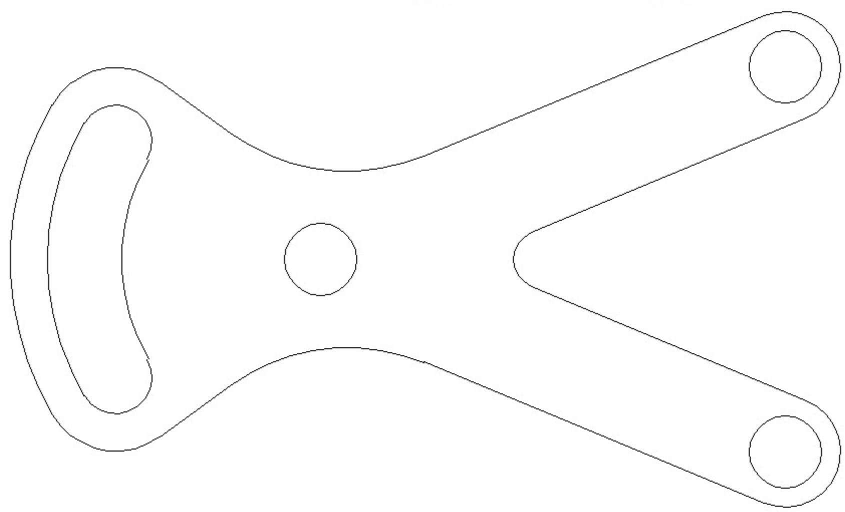

R31.6
Ø36.7
R14
R60
28
14
14
145.5
Ø57.2
21.4
57.5
R10
60
24
168

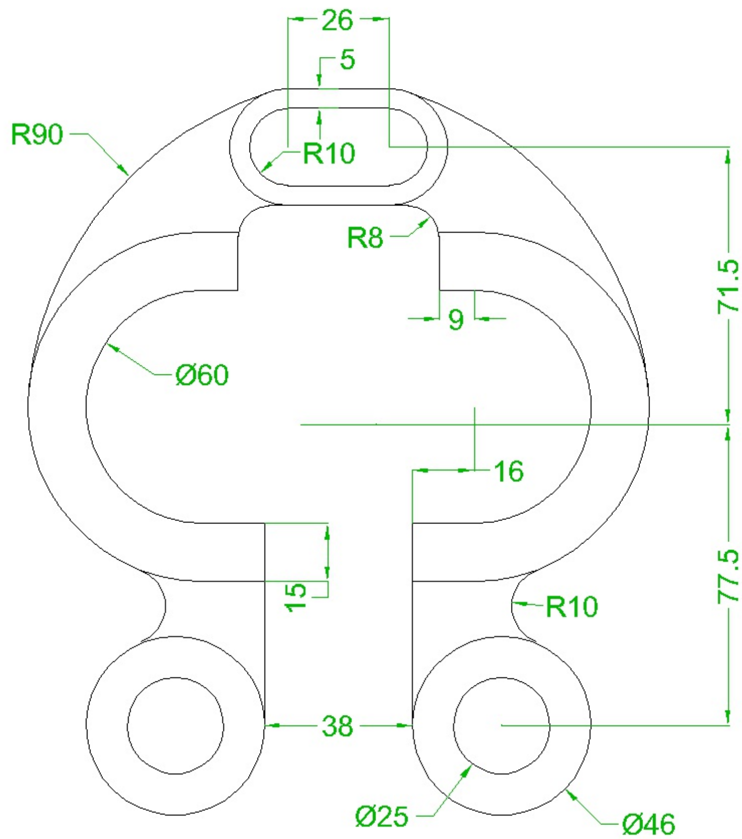

R40
120°
120°
R20
R250
139
117

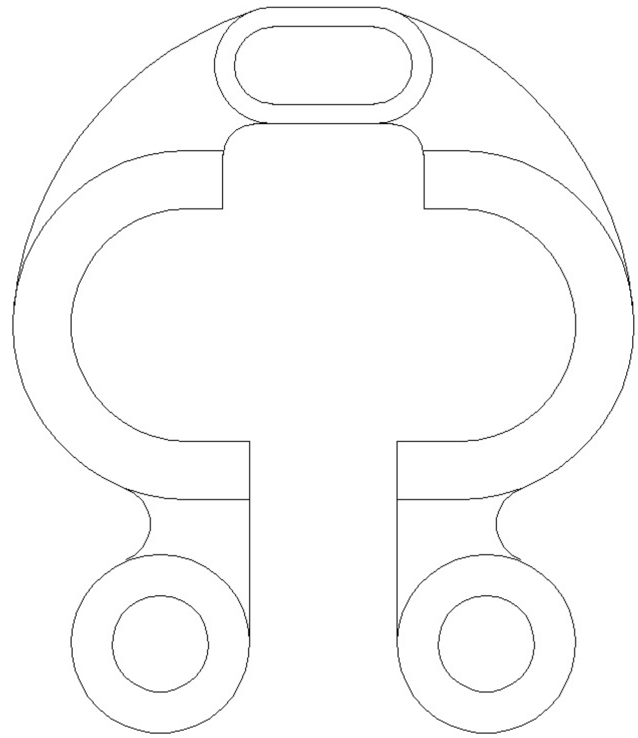


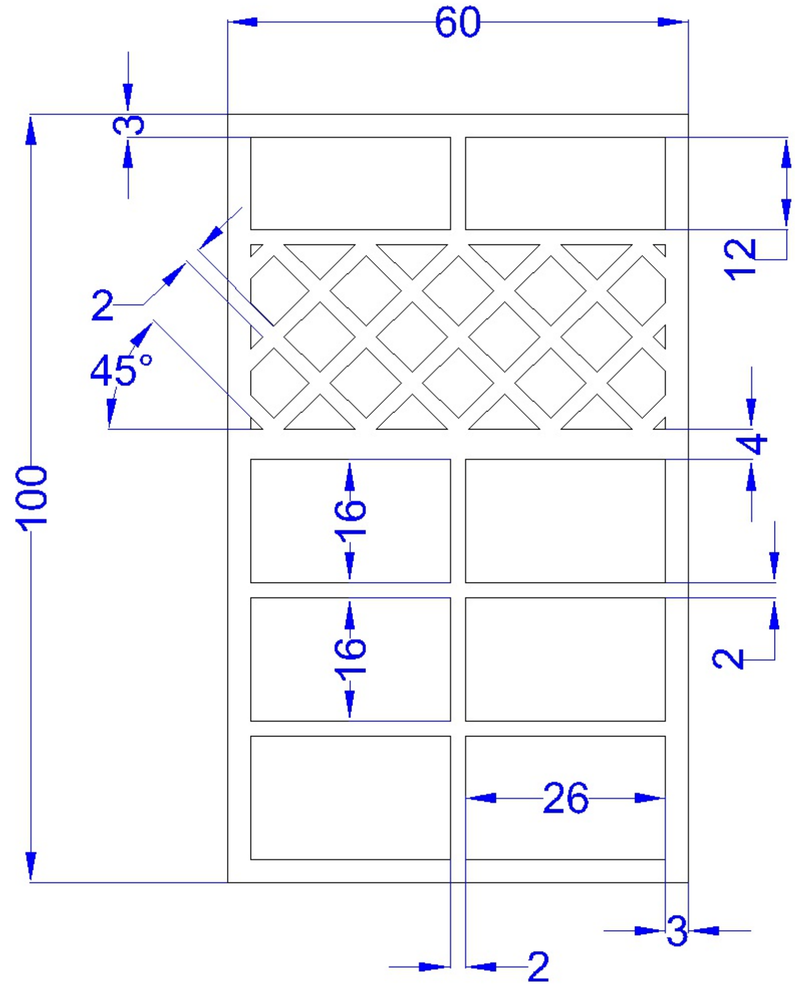

100
33
2
42
13
14
4
6
25
23
29
19
19
8
28
10
35
40

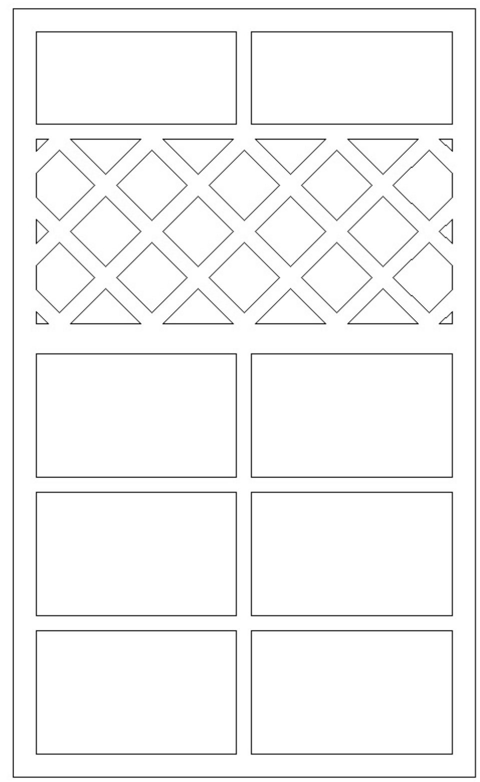

R7.5
R5
R10
R5
R27
30°
30
R5
R4
32
30
32.9

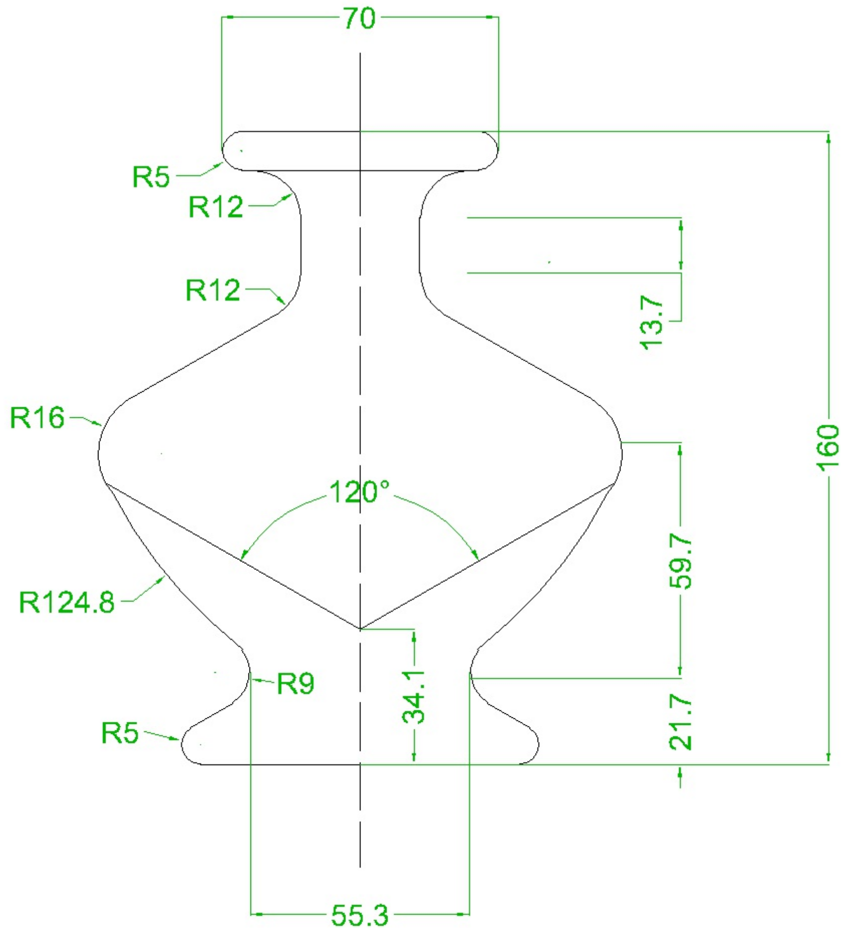



26
5
R90
R10
R8
9
Ø60
16
71.5
77.5
15
R10
38
Ø25
Ø46

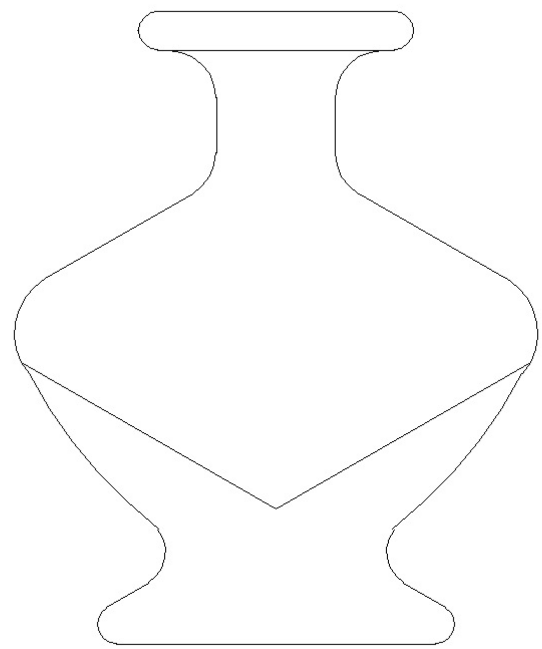


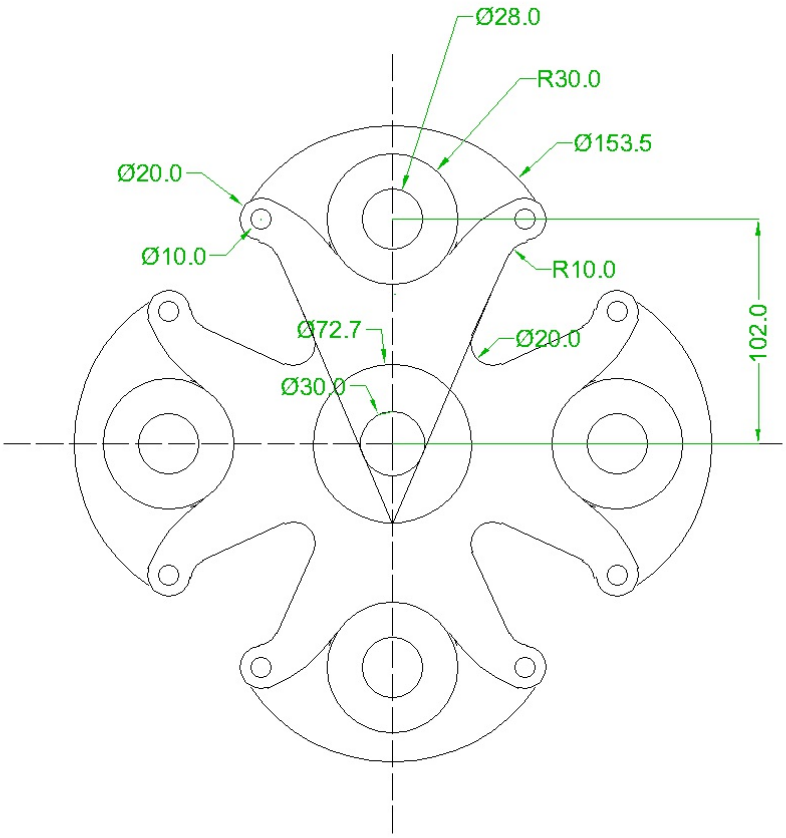

60
3
12
2
45°
4
100
16
16
2
26
3
2

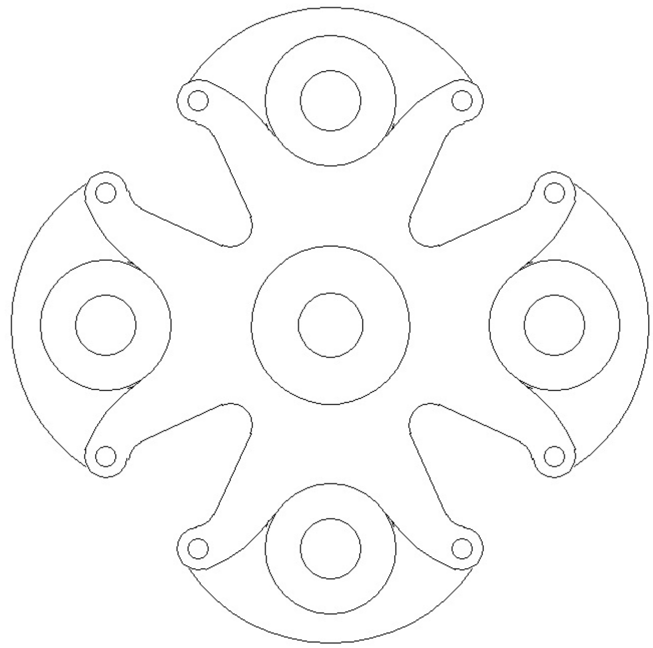


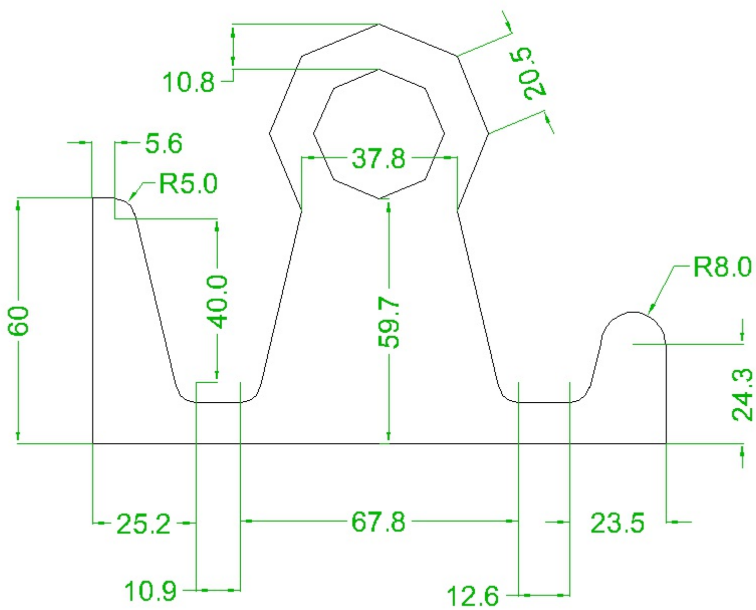


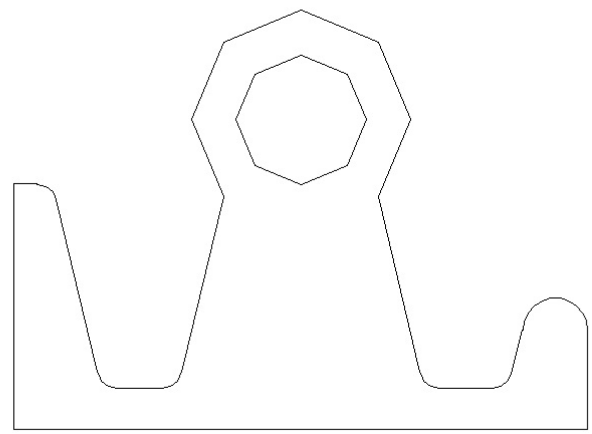
70
R5
R12
R12
13.7
R16
160
120°
59.7
R124.8
R9
34.1
R5
21.7
55.3

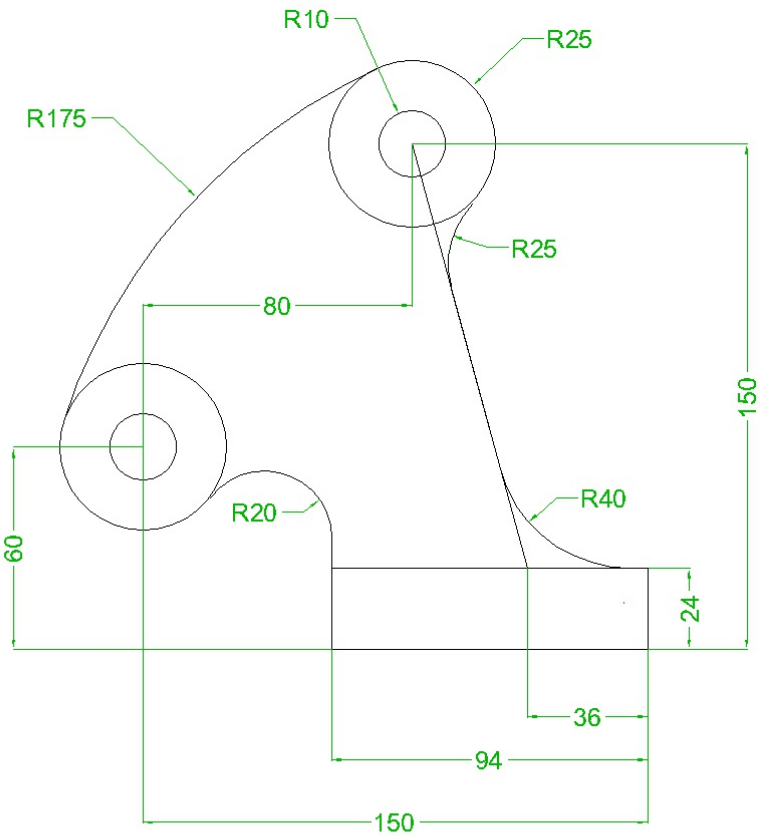


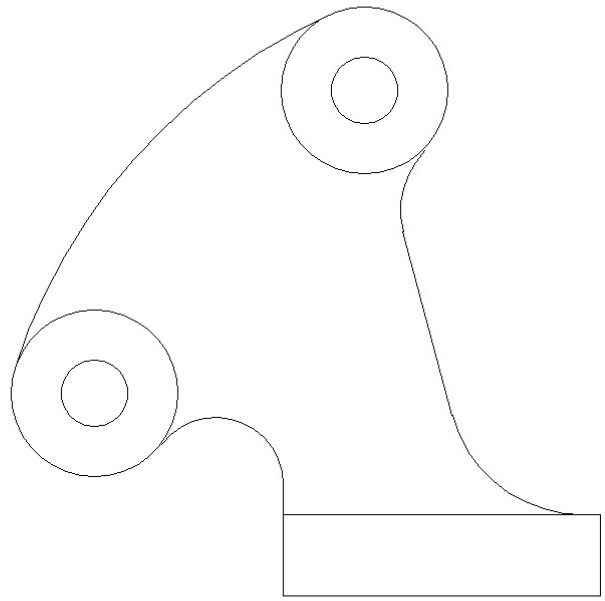

Ø28.0
R30.0
Ø153.5
Ø20.0
Ø10.0
R10.0
102.0
Ø72.7
Ø20.0
Ø30.0

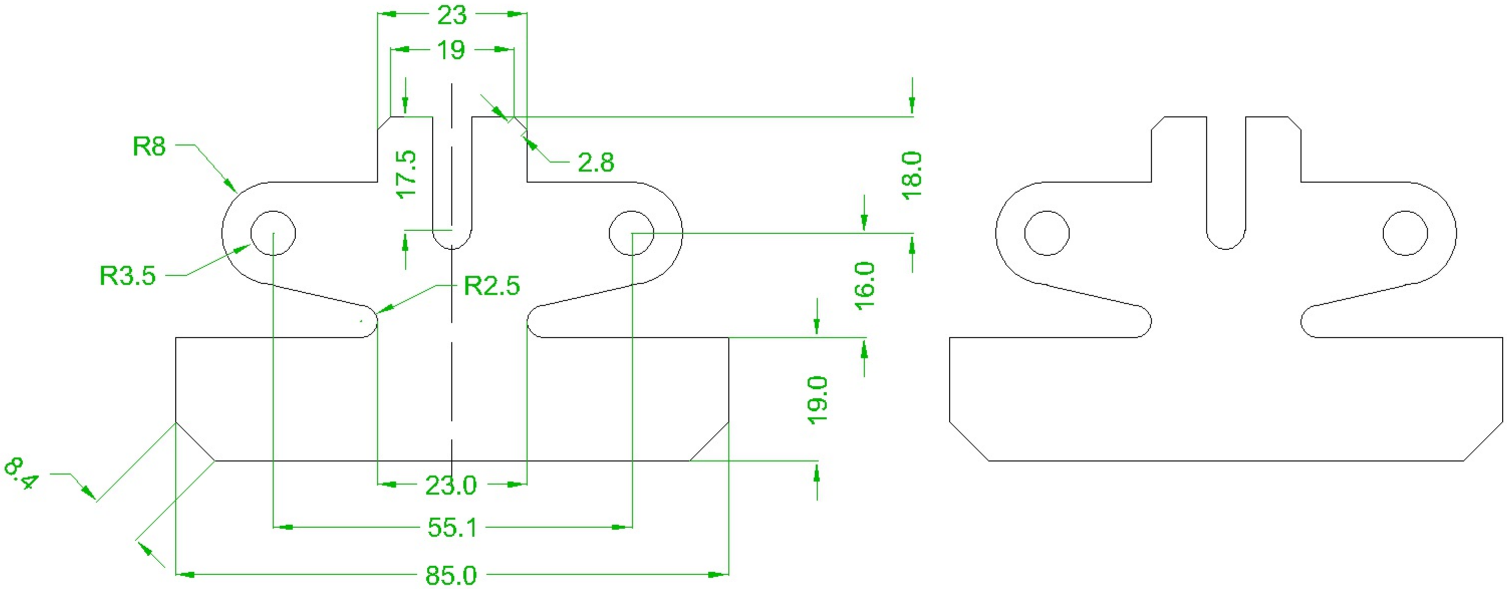



10.8
20.5
5.6
R5.0
37.8
R8.0
60
40.0
59.7
24.3
25.2
67.8
23.5
10.9
12.6

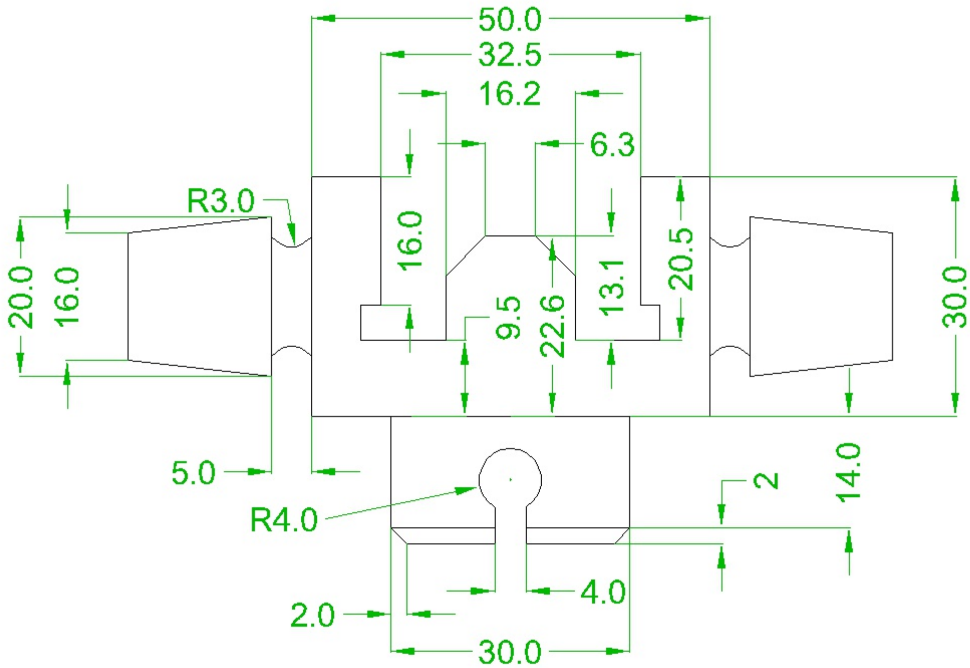


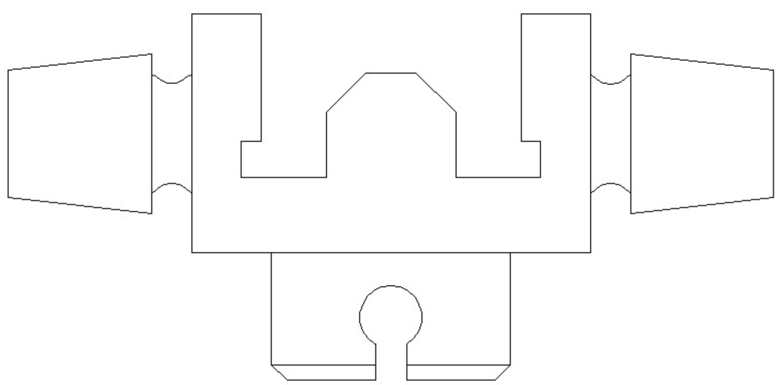

R10
R25
R175
R25
80
150
R40
R20
60
24
36
94
150

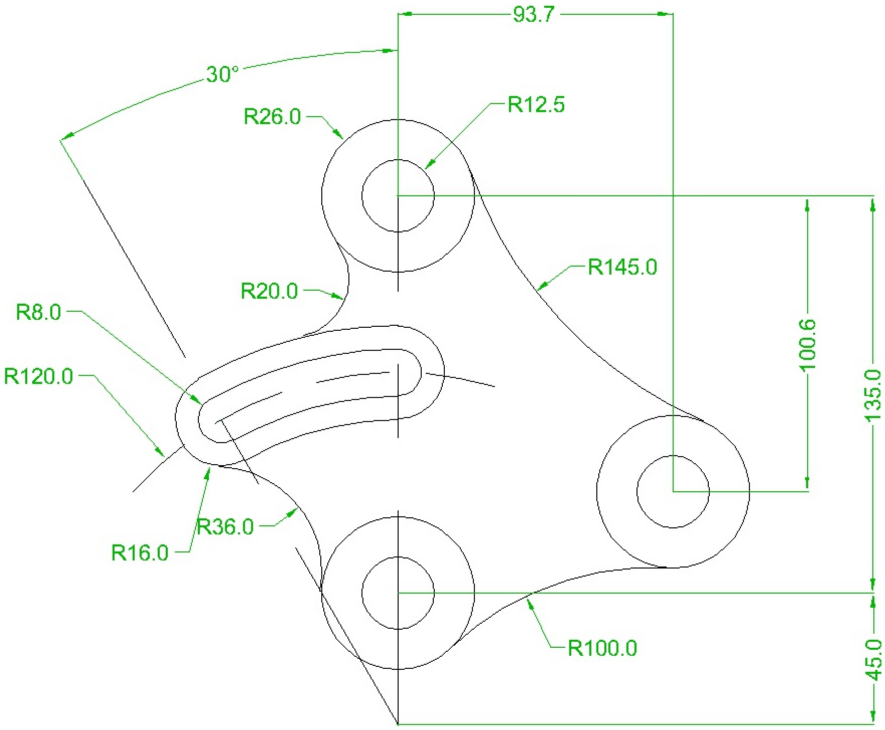


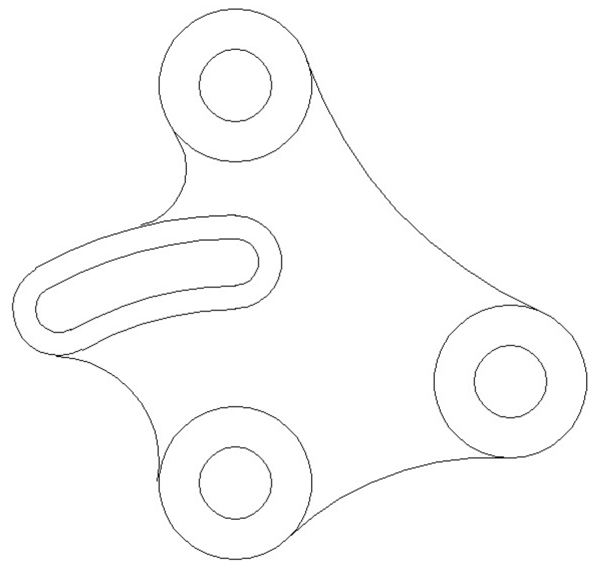


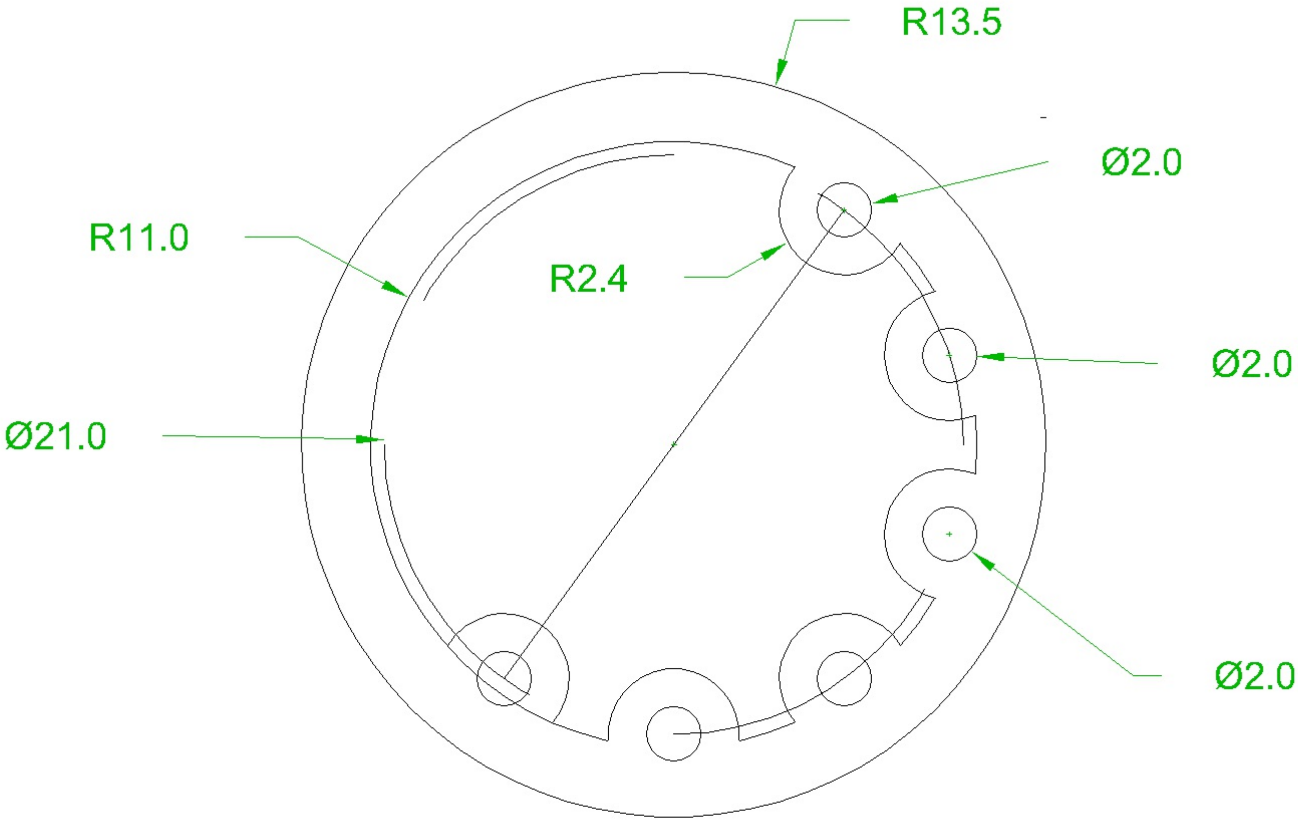
23
19
R8
17.5
2.8
18.0
R3.5
R2.5
16.0
19.0
8.4
23.0
55.1
85.0

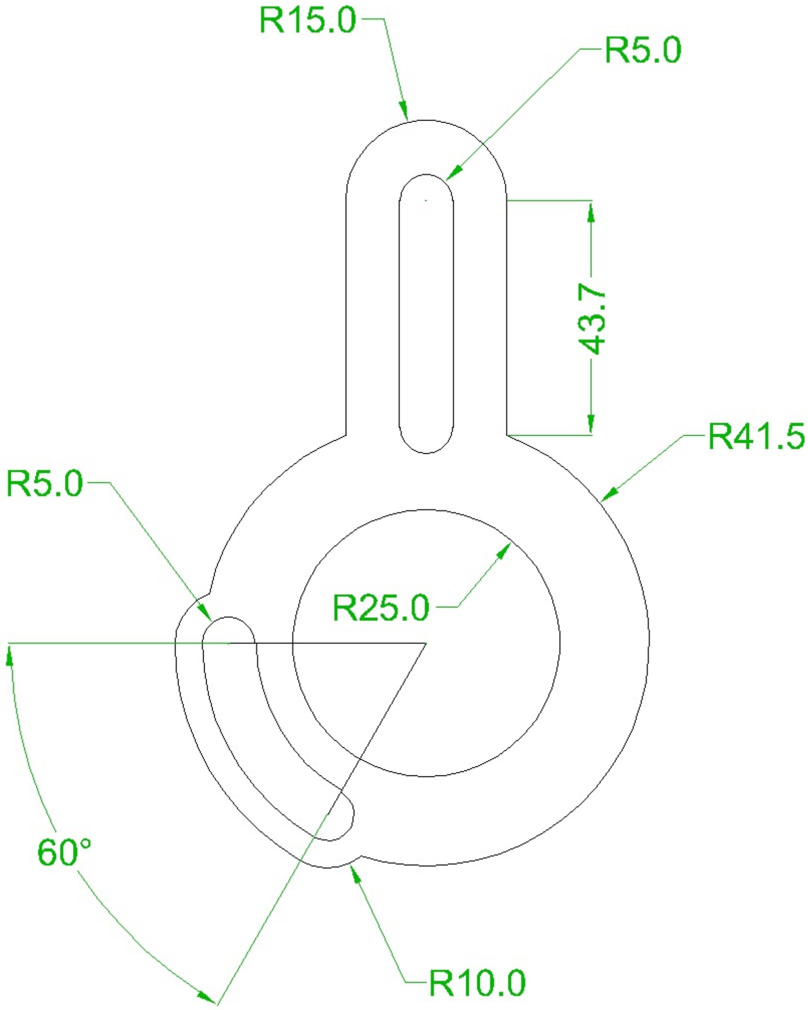

50.0
32.5
16.2
6.3
R3.0
16.0
20.5
30.0
20.0
16.0
9.5
22.6
13.1
5.0
R4.0
2
14.0
4.0
2.0
30.0

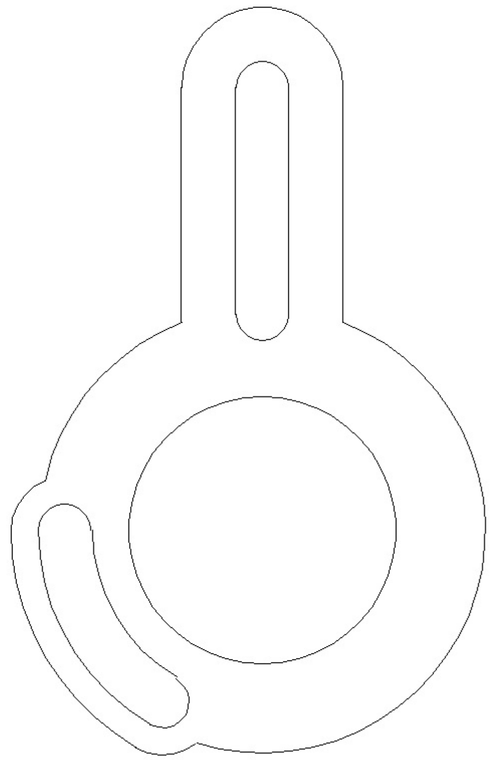


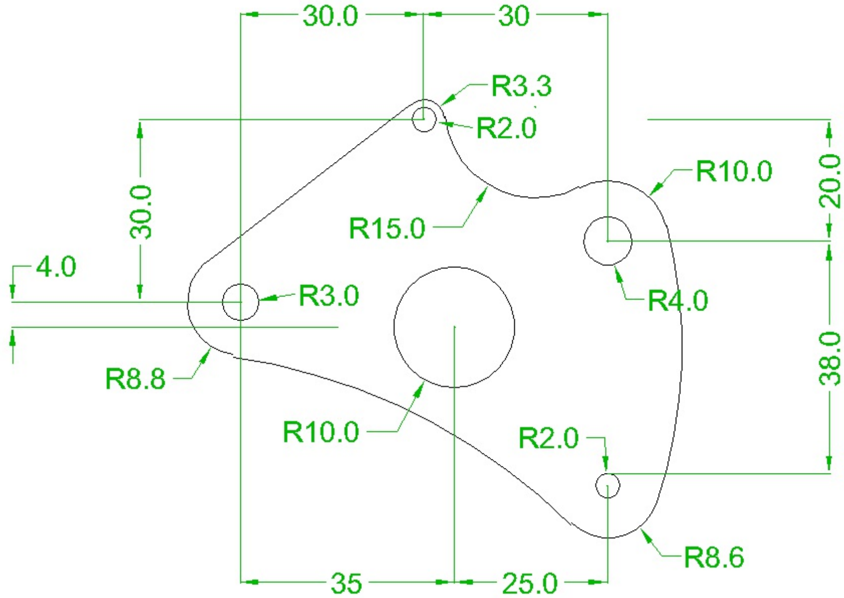

93.7
30°
R26.0
R12.5
R20.0
R145.0
R8.0
R120.0
100.6
135.0
R16.0
R36.0
R100.0
45.0

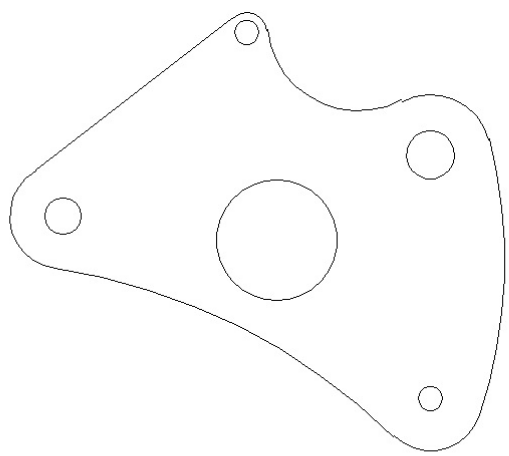


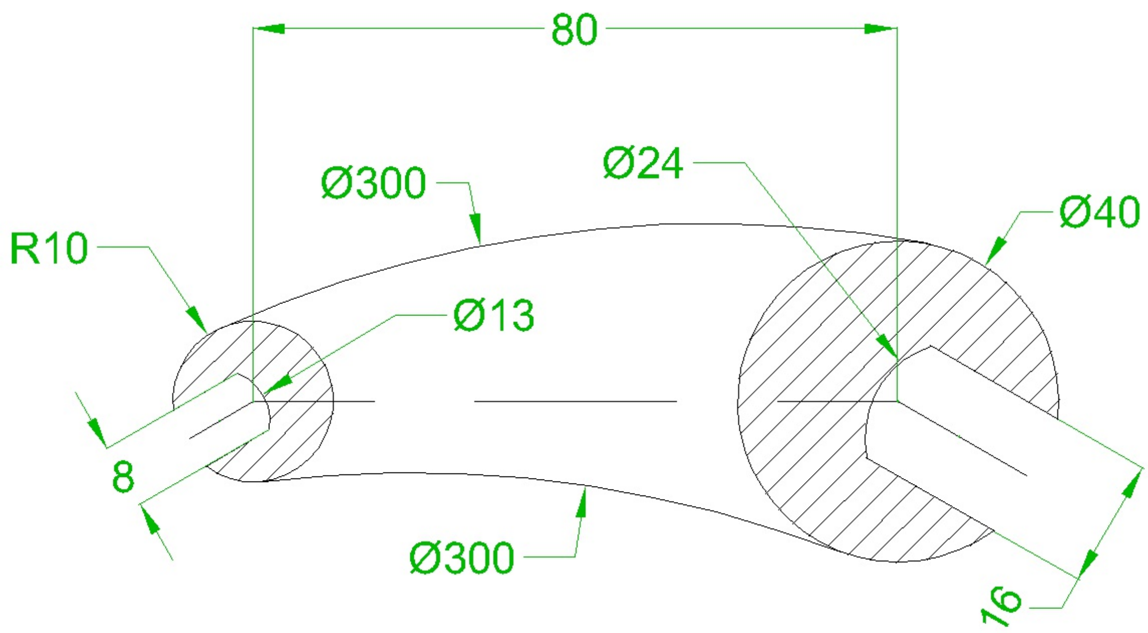

R13.5
Ø2.0
R11.0
R2.4
Ø2.0
Ø21.0
Ø2.0

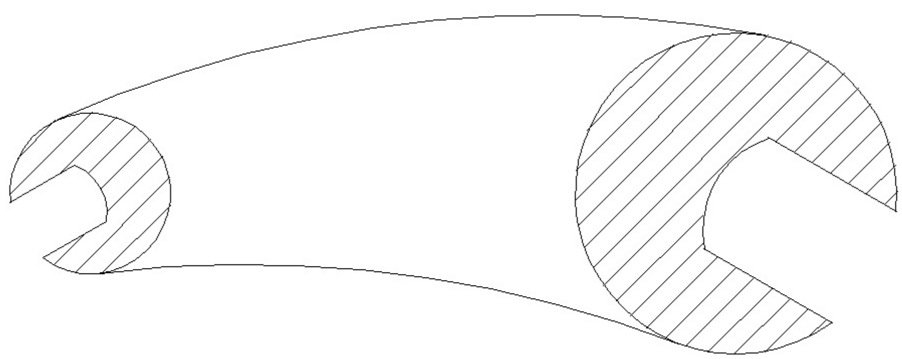

R15.0
R5.0
43.7
R41.5
R5.0
R25.0
60°
R10.0

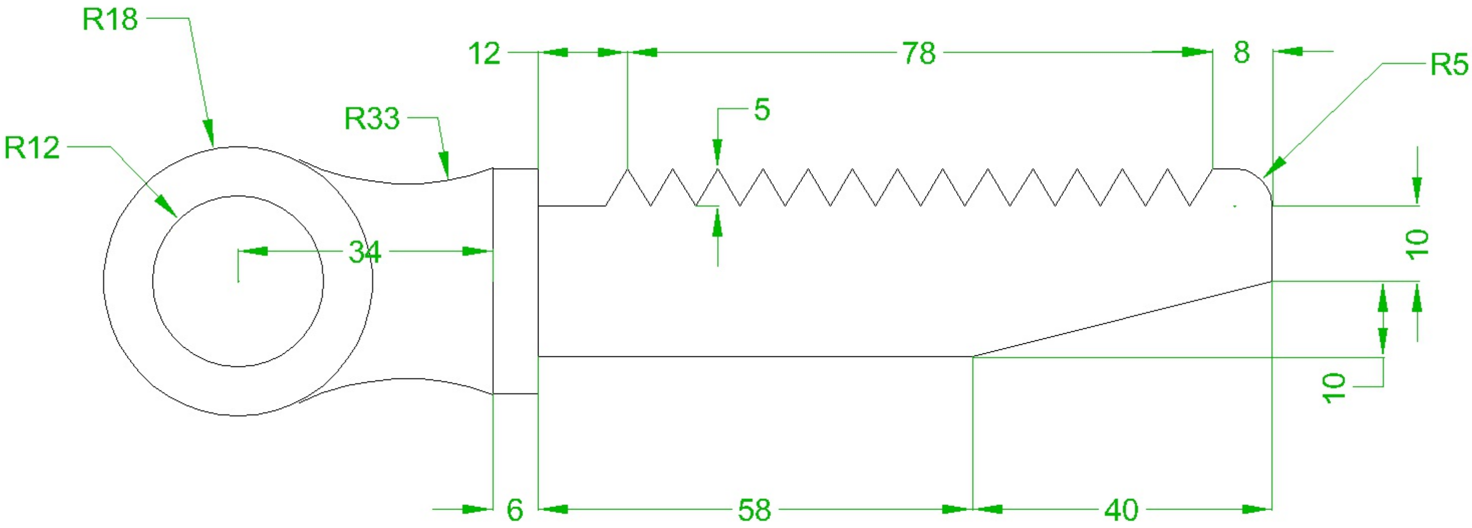


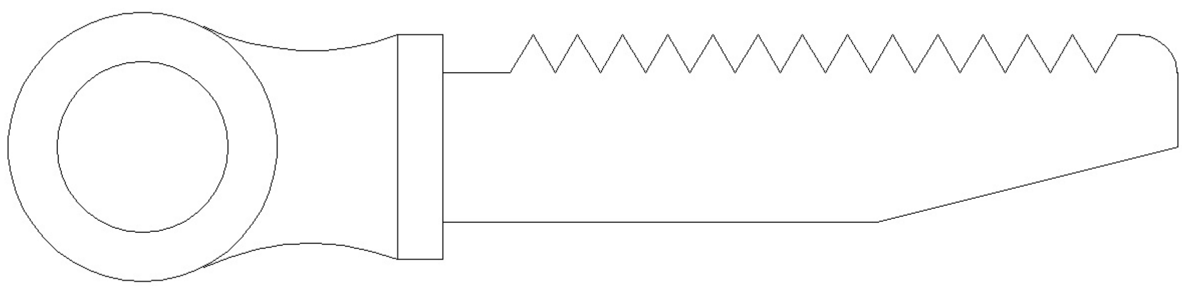

30.0
30
R3.3
R2.0
R10.0
20.0
R15.0
30.0
4.0
R3.0
R4.0
R8.8
38.0
R10.0
R2.0
R8.6
35
25.0

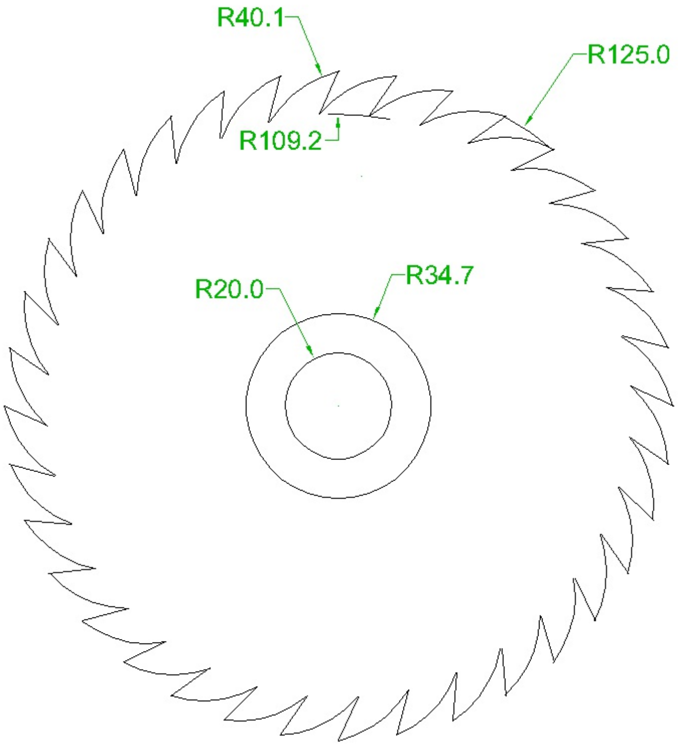


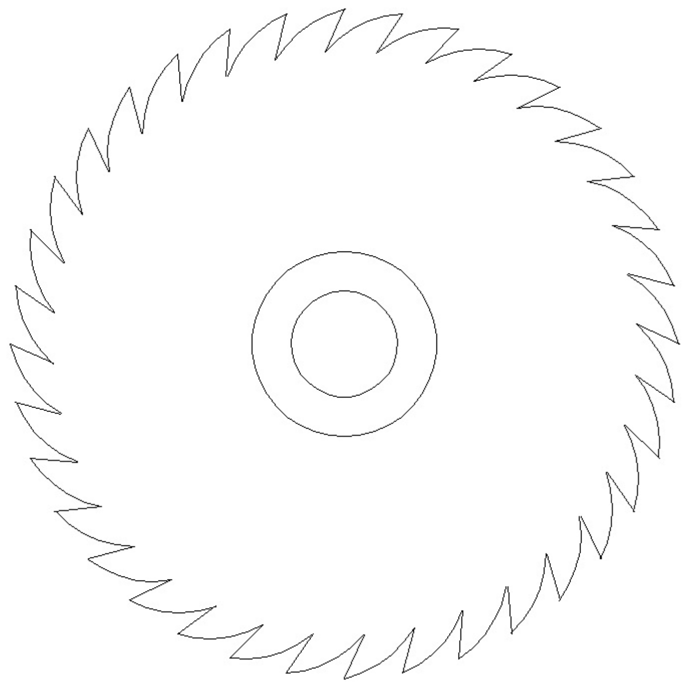

80
Ø300
Ø24
Ø40
R10
Ø13
8
Ø300
16

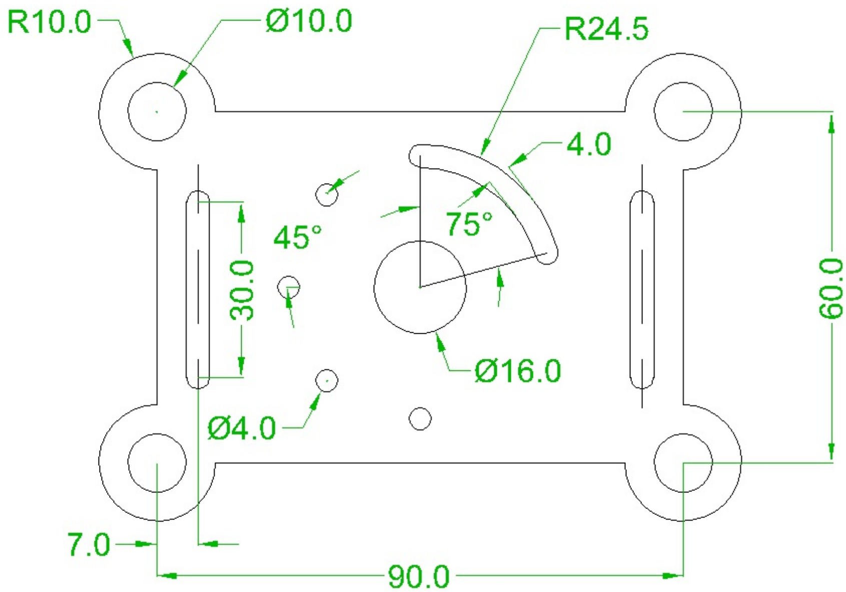


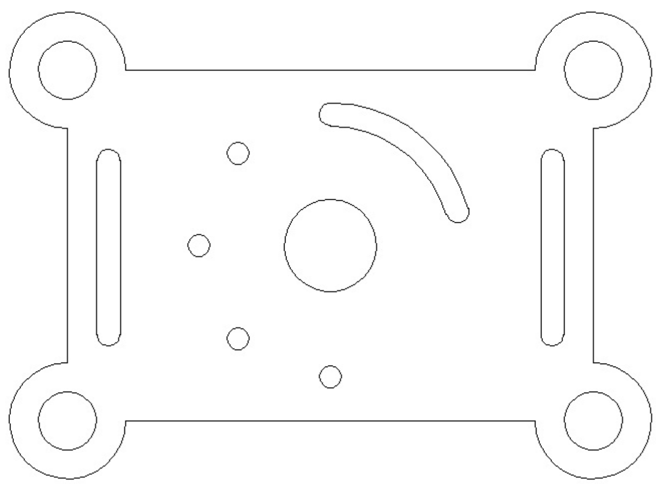

R18
R12
R33
12
78
8
R5
5
34
10
10
6
58
40

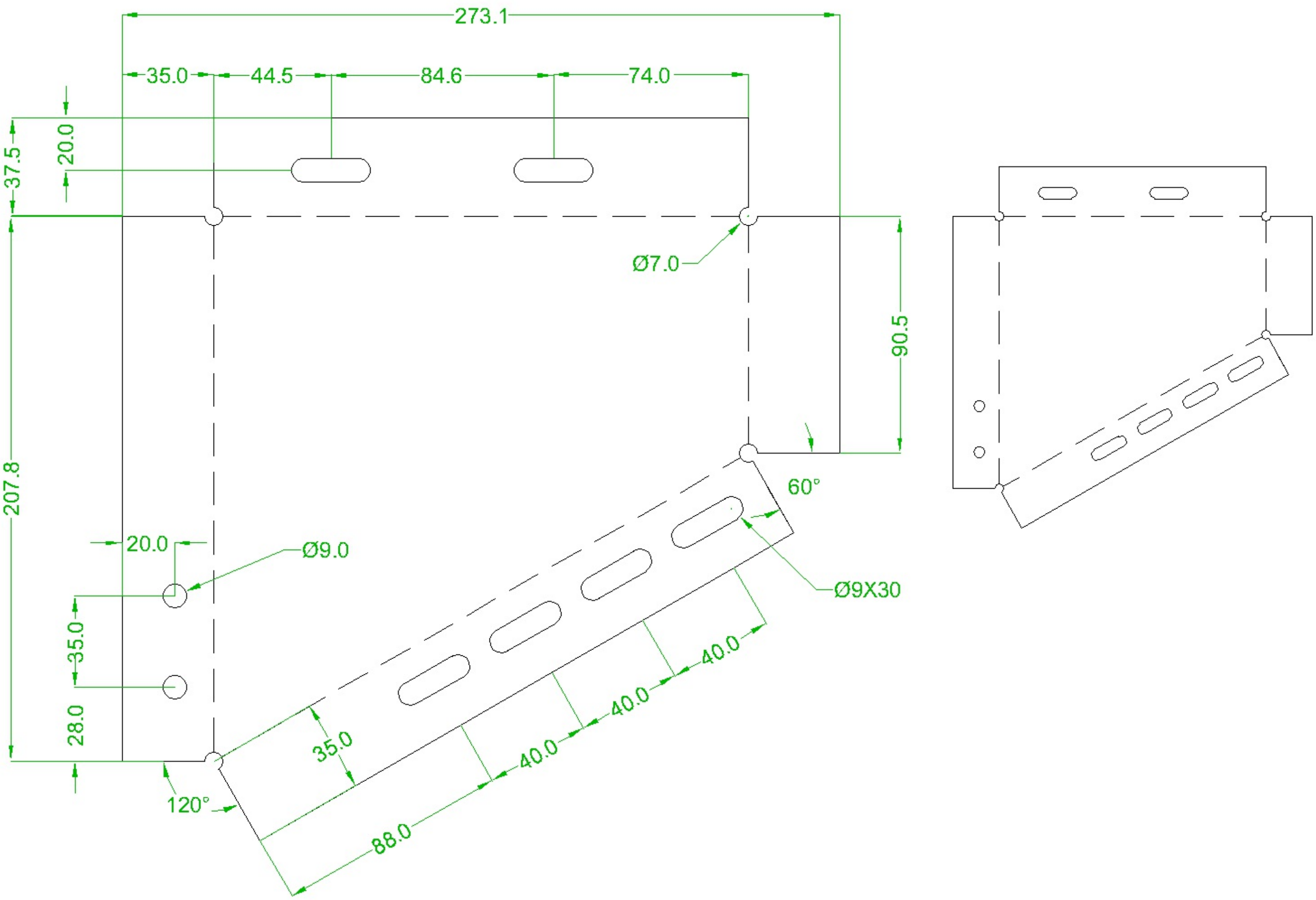


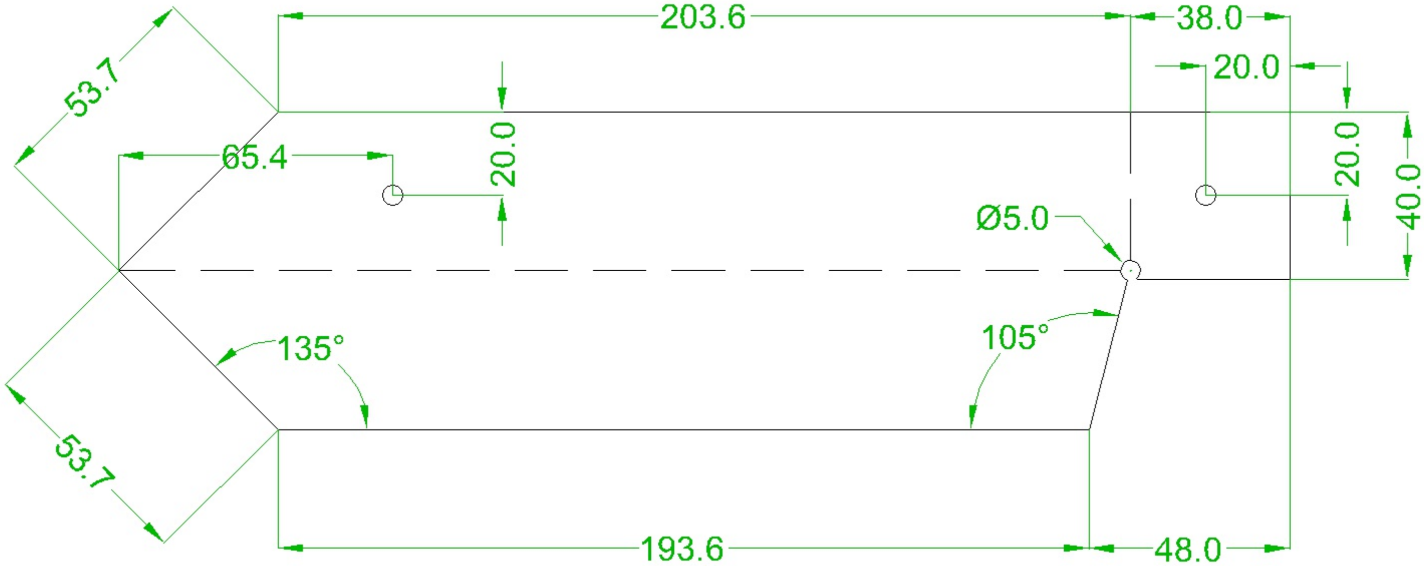

R40.1
R125.0
R109.2
R20.0
R34.7

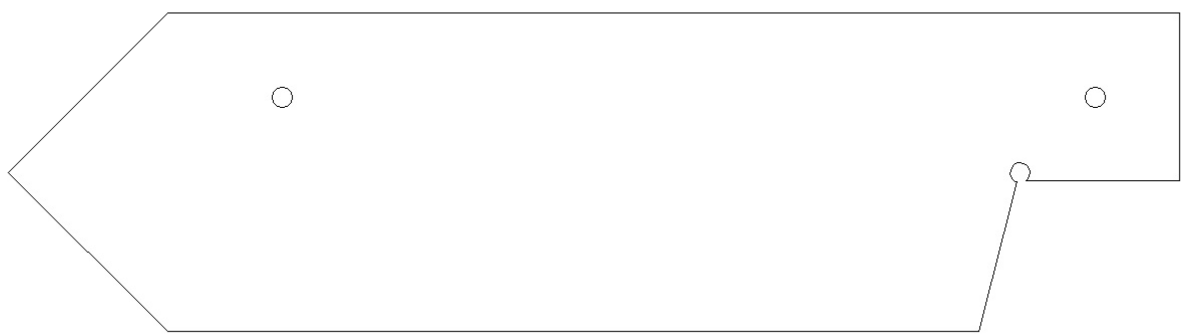


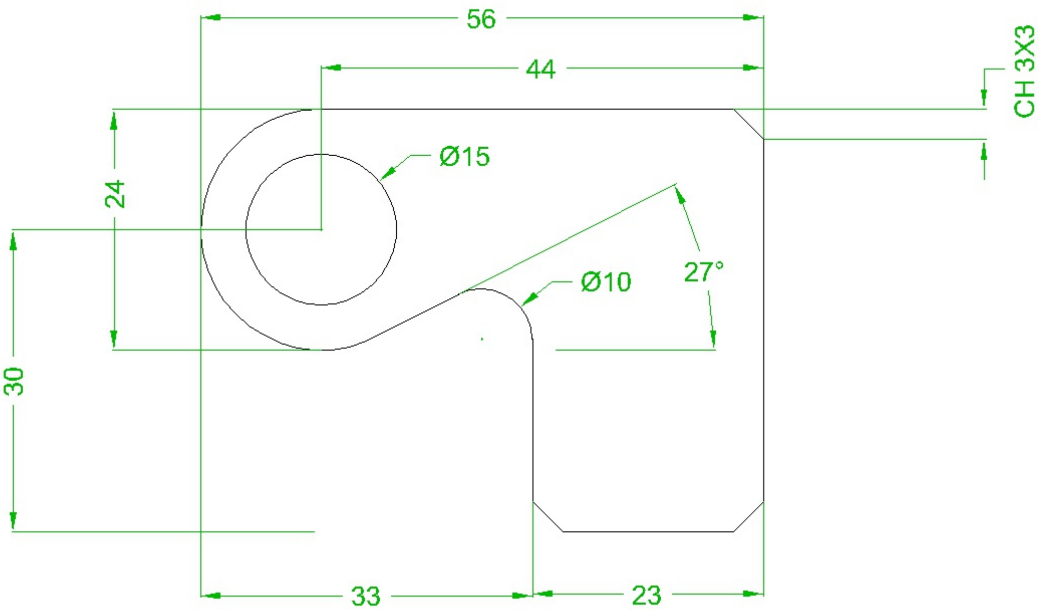

R10.0
Ø10.0
R24.5
4.0
45°
75°
30.0
60.0
Ø16.0
Ø4.0
7.0
90.0

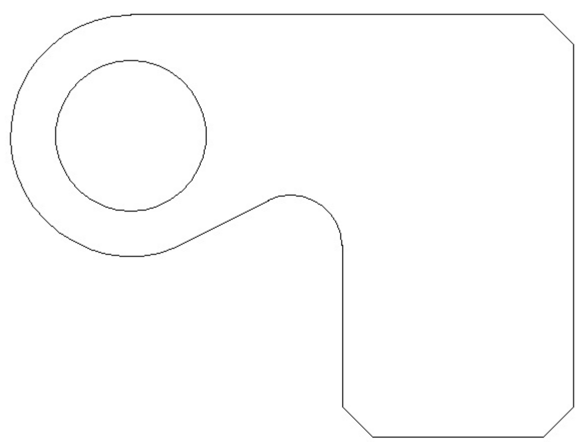


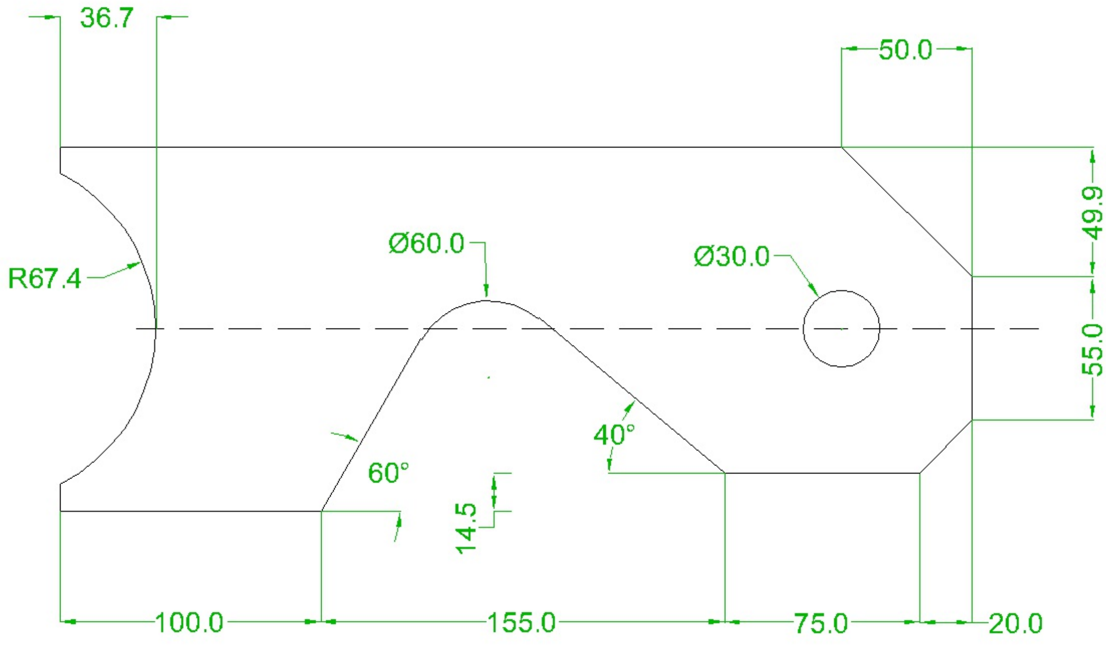

273.1
35.0
44.5
84.6
74.0
20.0
37.5
Ø7.0
90.5
207.8
60°
20.0
Ø9.0
Ø9X30
35.0
40.0
40.0
40.0
28.0
35.0
120°
88.0


203.6
38.0
20.0
53.7
65.4
20.0
20.0
40.0
Ø5.0
135°
105°
53.7
193.6
48.0

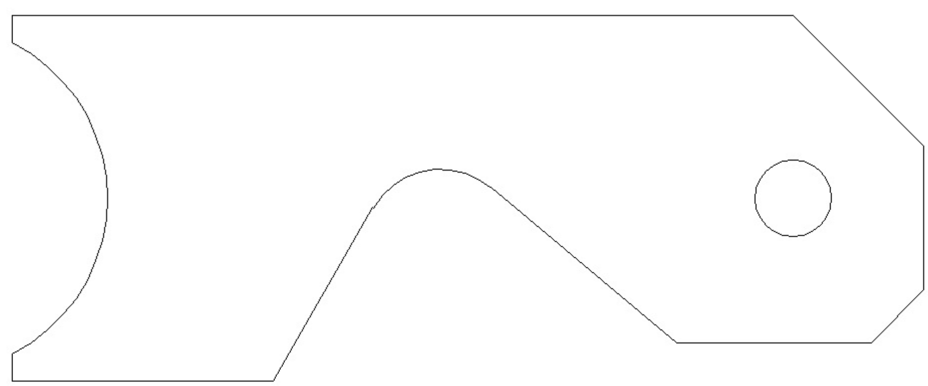


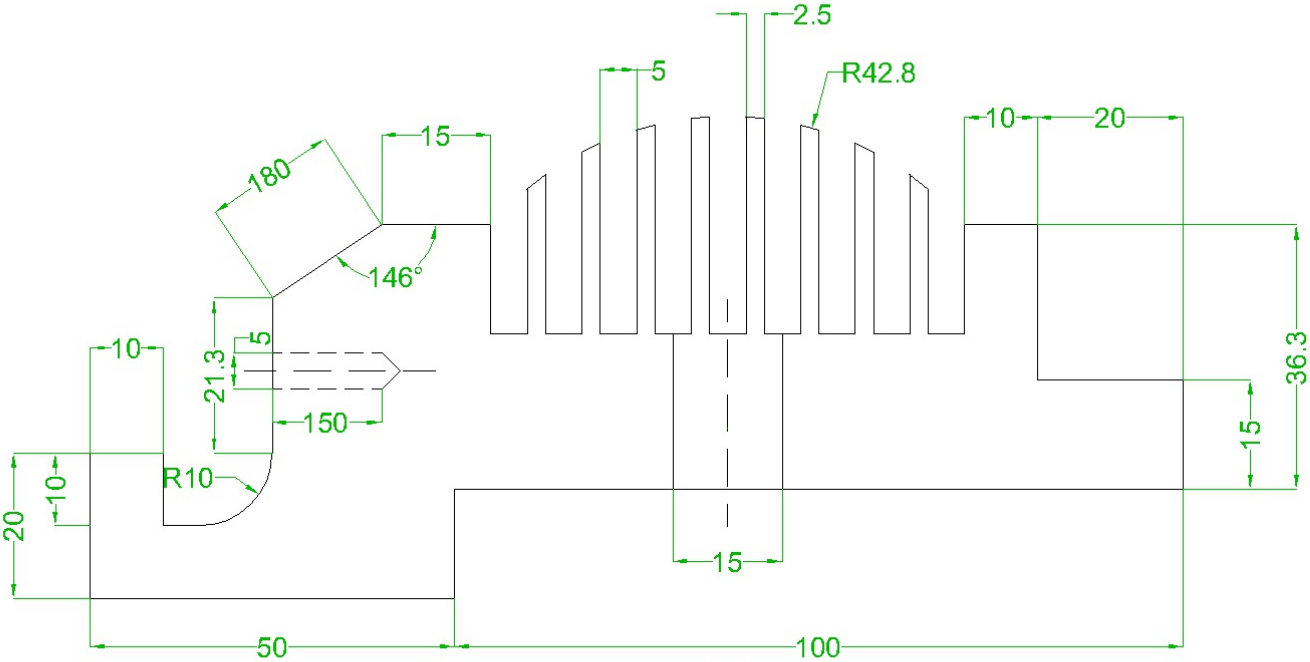
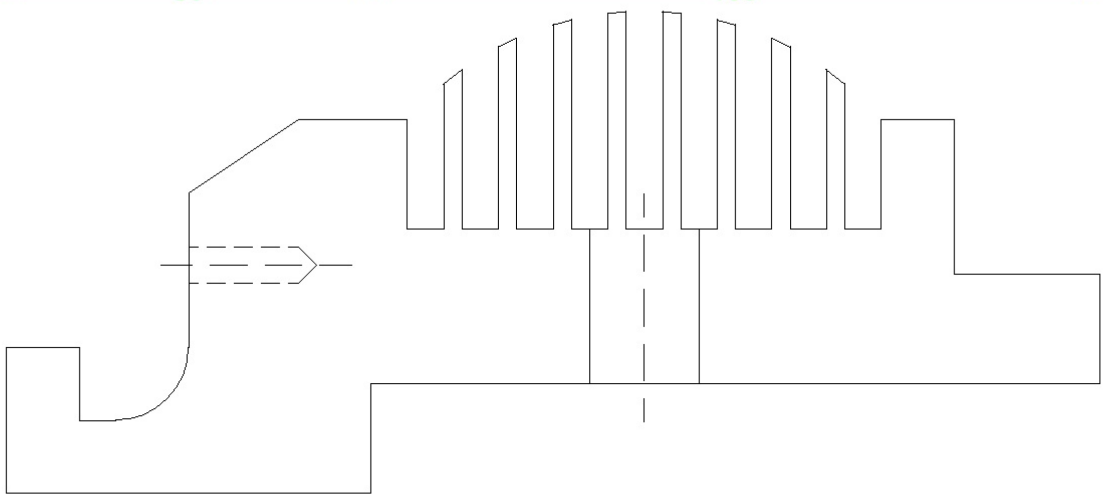

56
44
CH 3X3
Ø15
24
27°
Ø10
30
33
23

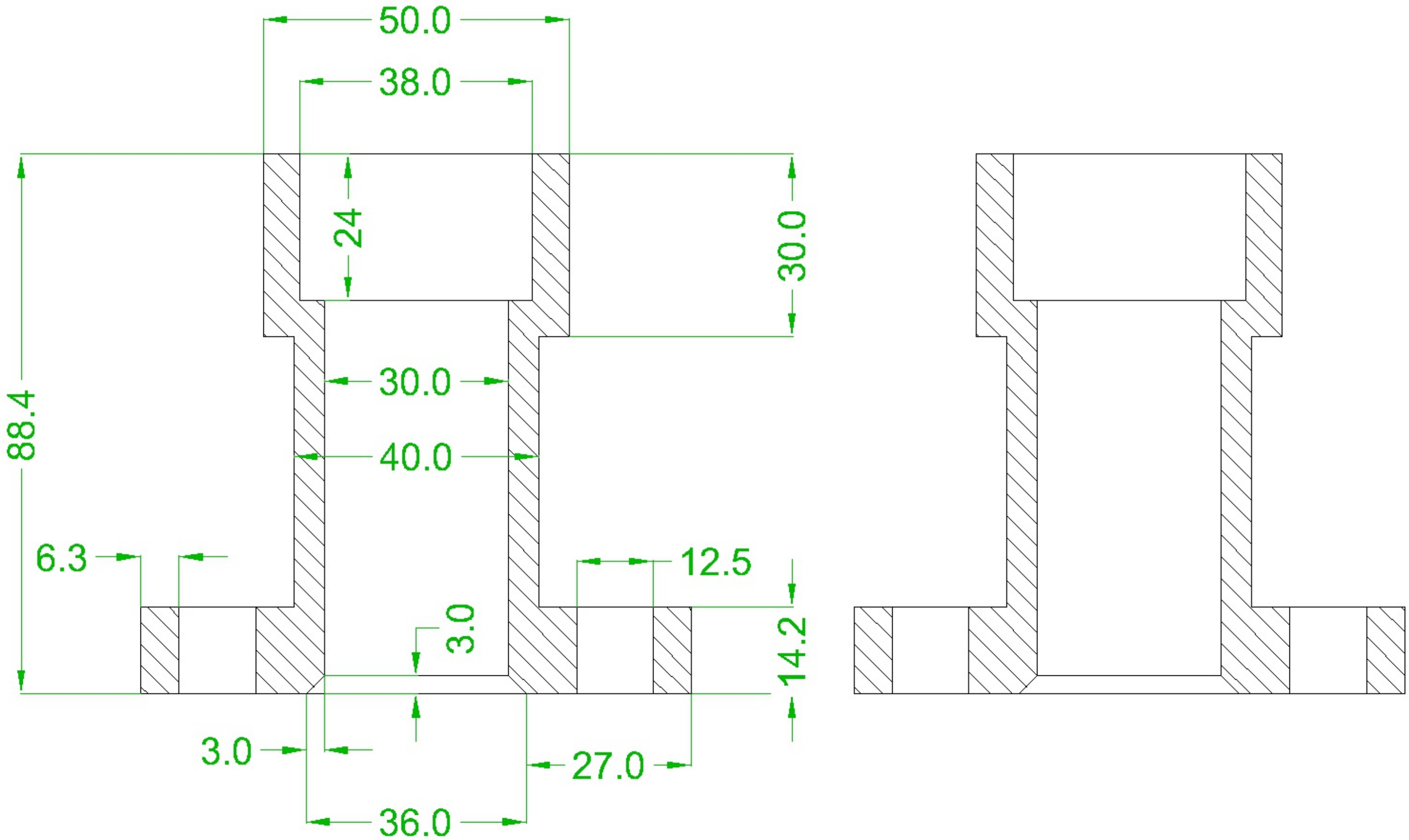


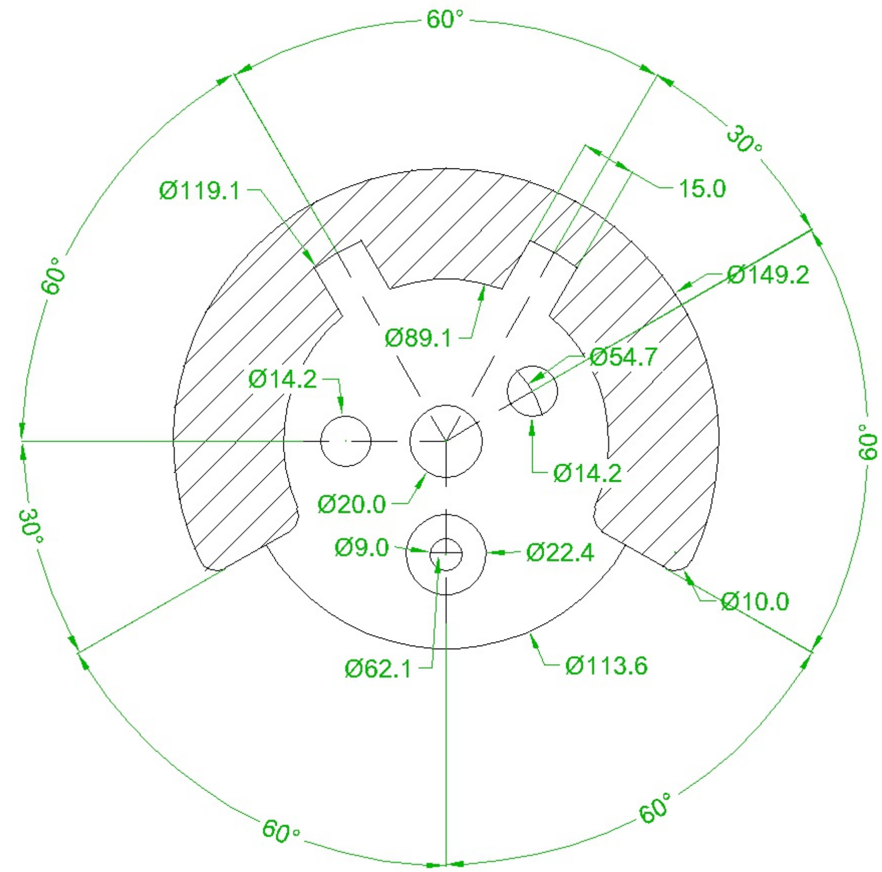


36.7
50.0
49.9
R67.4
Ø60.0
Ø30.0
55.0
40°
60°
14.5
100.0
155.0
75.0
20.0

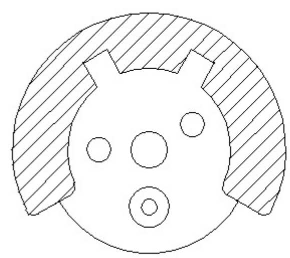


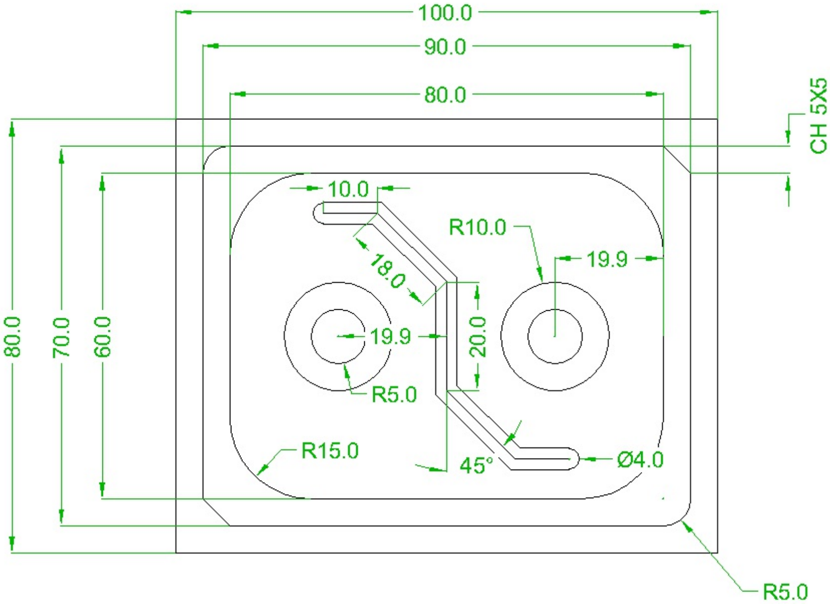

2.5
5
R42.8
15
180
10
20
146°
10
5
21.3
150
36.3
15
R10
10
20
15
50
100


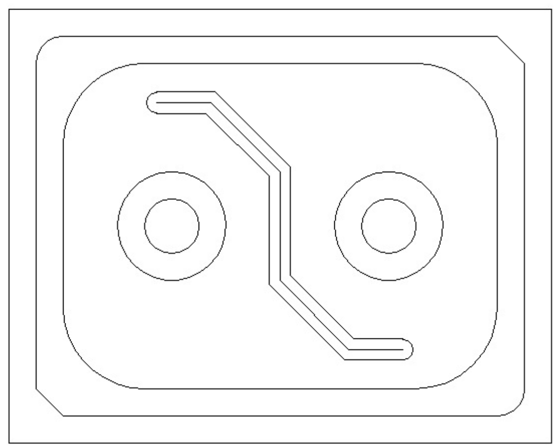

50.0
38.0
24
30.0
88.4
30.0
40.0
6.3
12.5
3.0
14.2
3.0
27.0
36.0

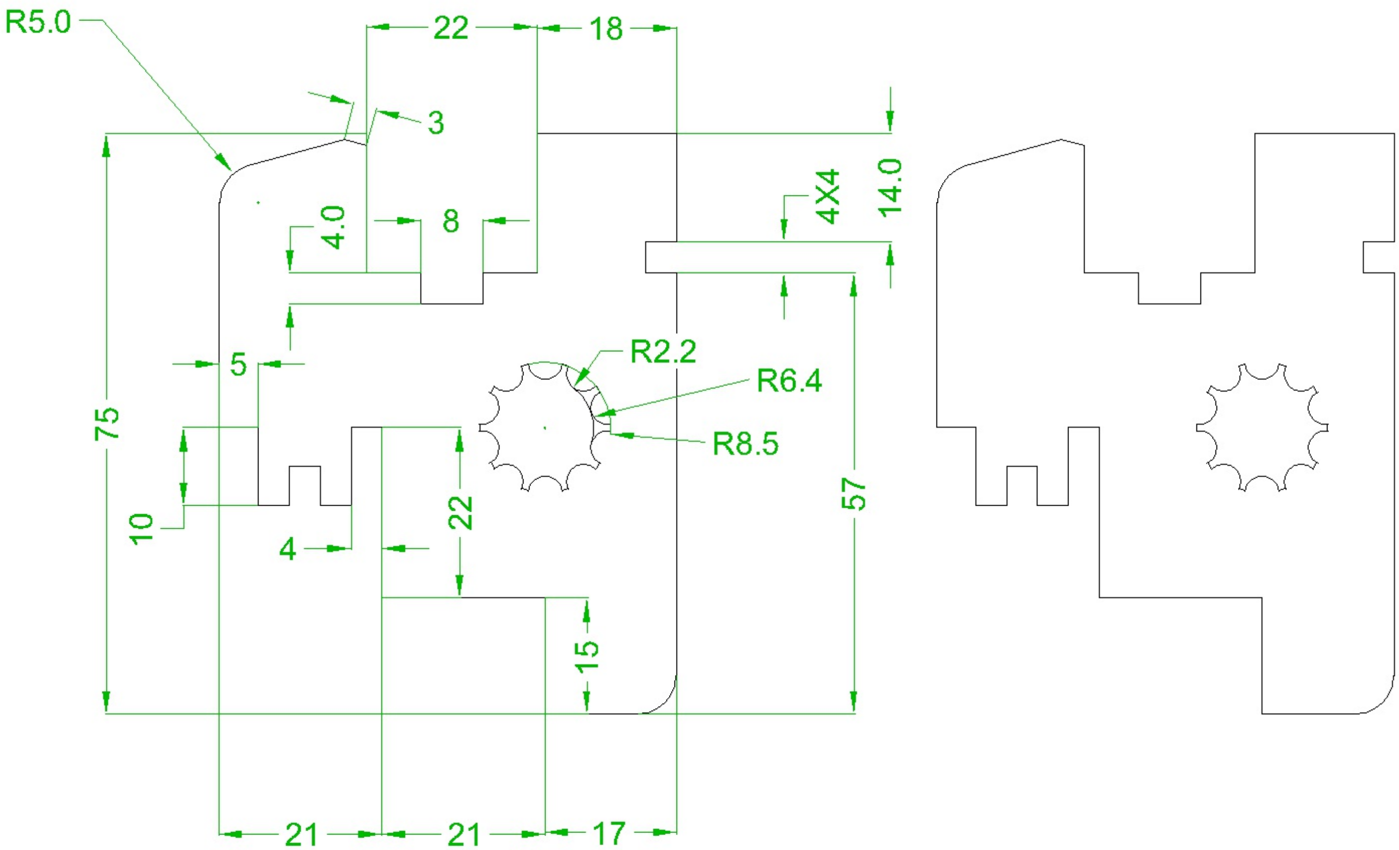


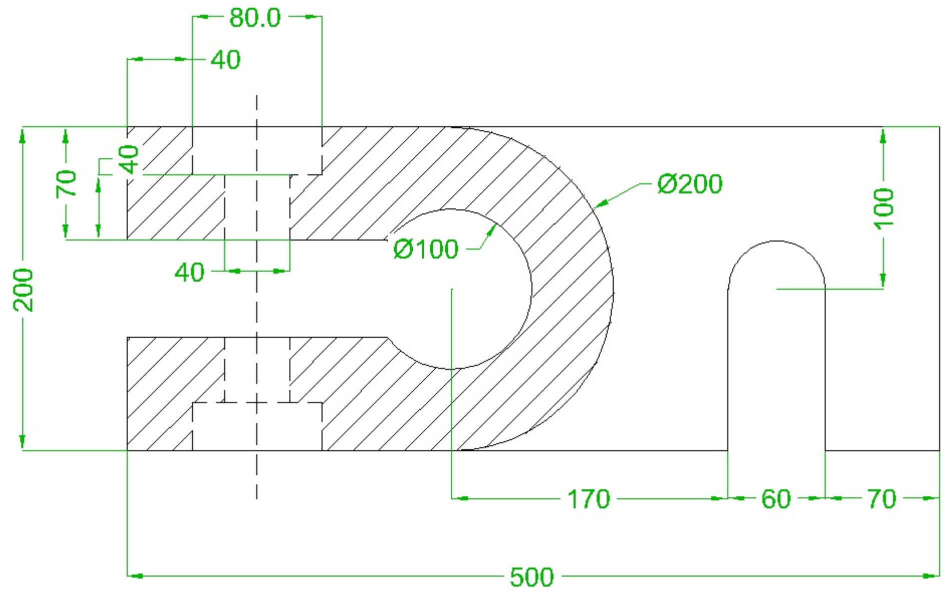
60°
30°
15.0
Ø119.1
Ø149.2
60°
Ø89.1
Ø54.7
Ø14.2
60°
Ø14.2
Ø20.0
30°
Ø9.0
Ø22.4
Ø10.0
Ø62.1
Ø113.6
60°
60°

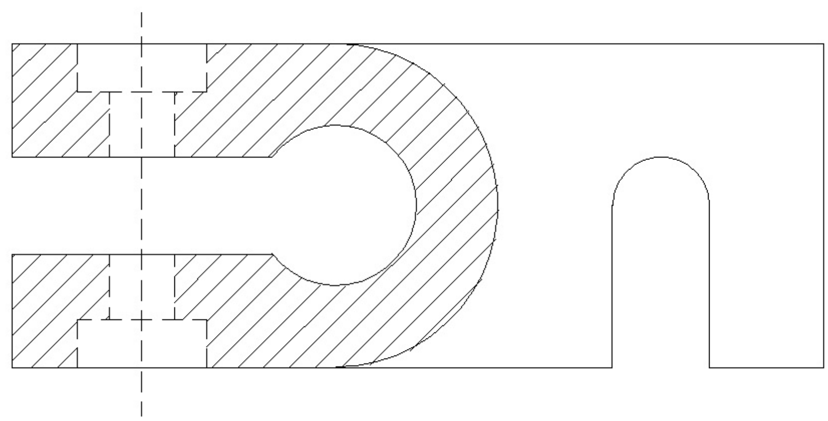


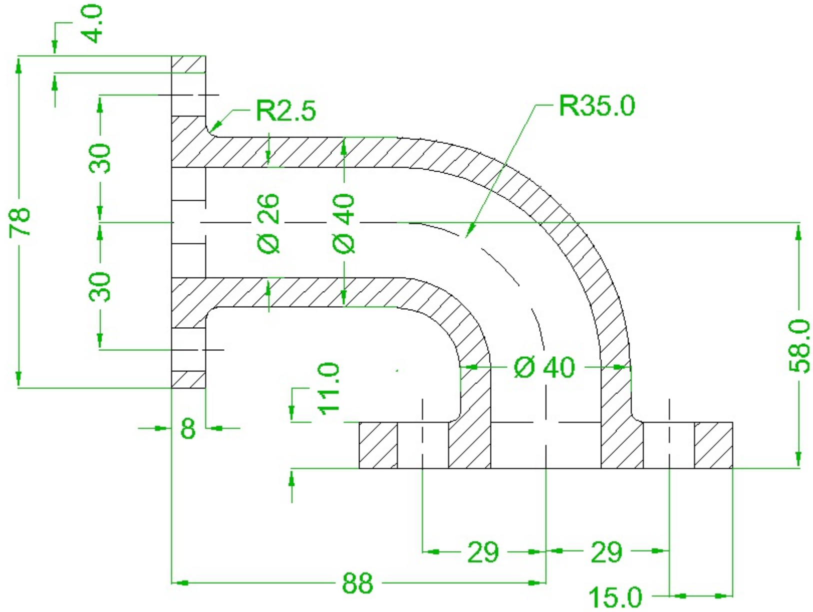

100.0
90.0
80.0
CH 5X5
10.0
R10.0
19.9
18.0
80.0
70.0
60.0
19.9
20.0
R5.0
R15.0
45°
Ø4.0
R5.0

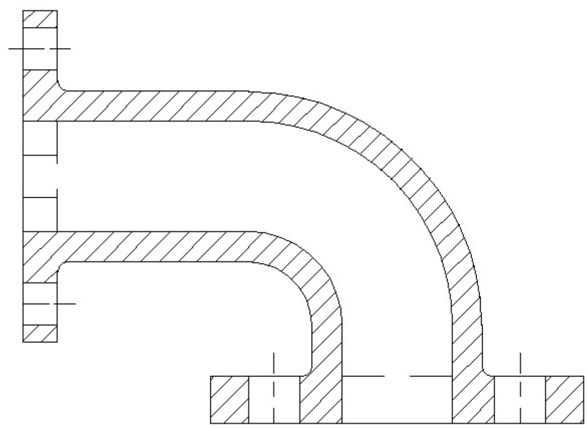


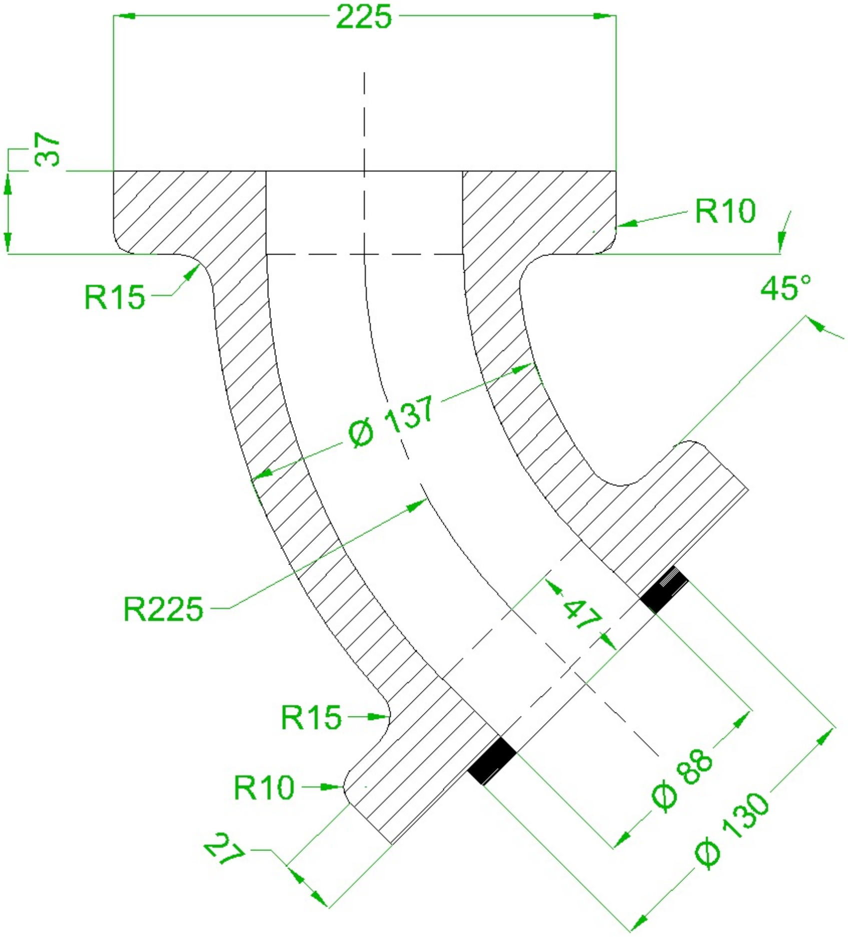

R5.0
22
18
3
4.0
8
4X4
14.0
5
R2.2
R6.4
R8.5
75
10
4
22
57
15
21
21
17


80.0
40
40
70
Ø200
100
Ø100
40
200
170
60
70
500

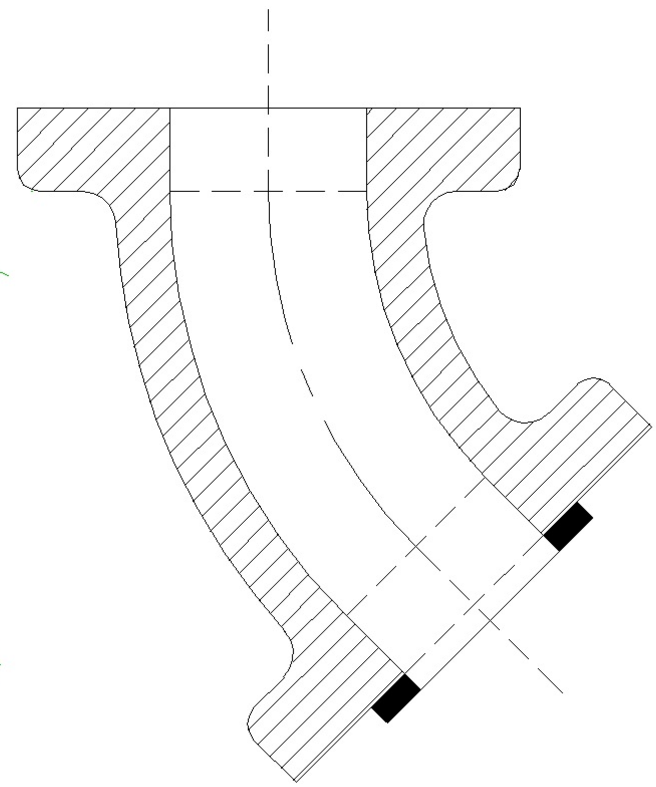


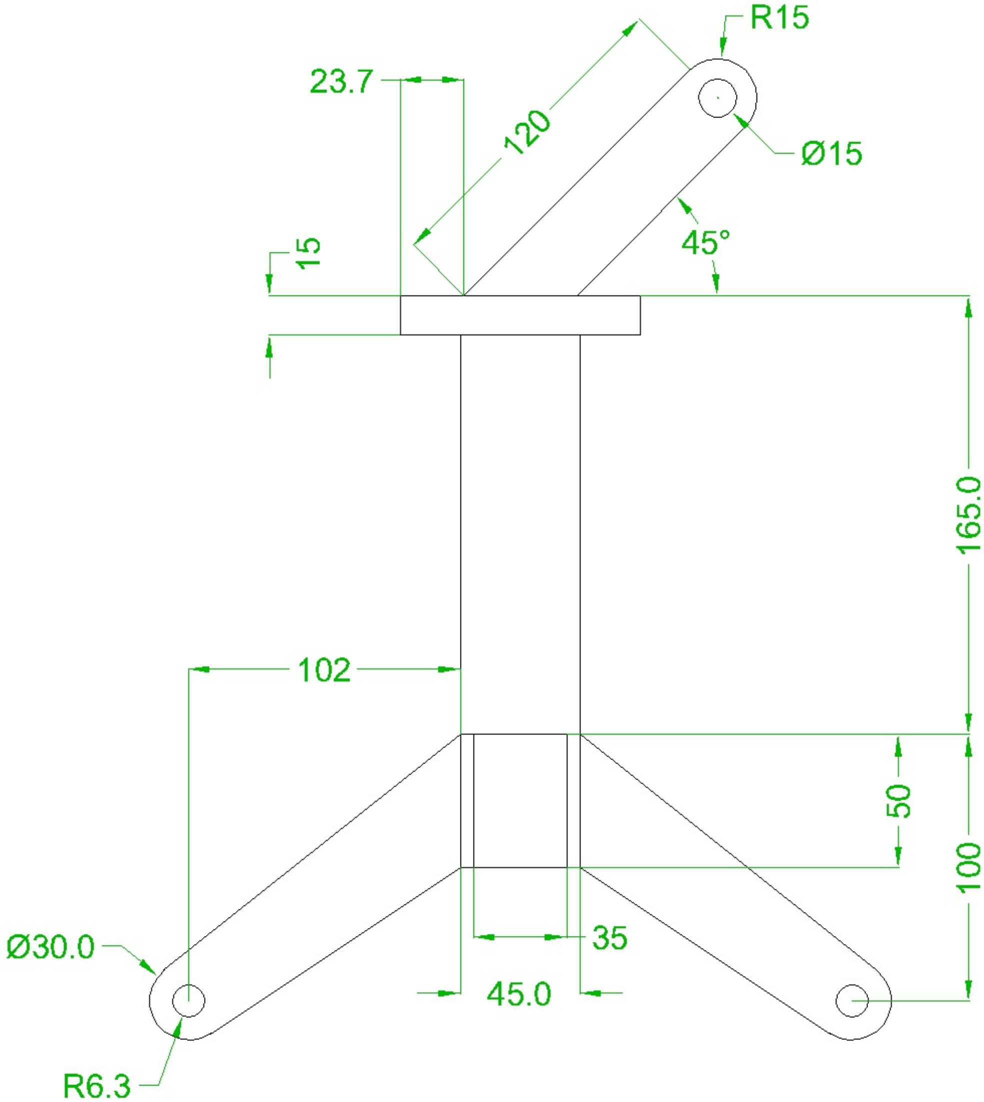

4.0
R2.5
R35.0
30
78
Ø 26
Ø 40
30
58.0
11.0
Ø 40
8
29
29
88
15.0

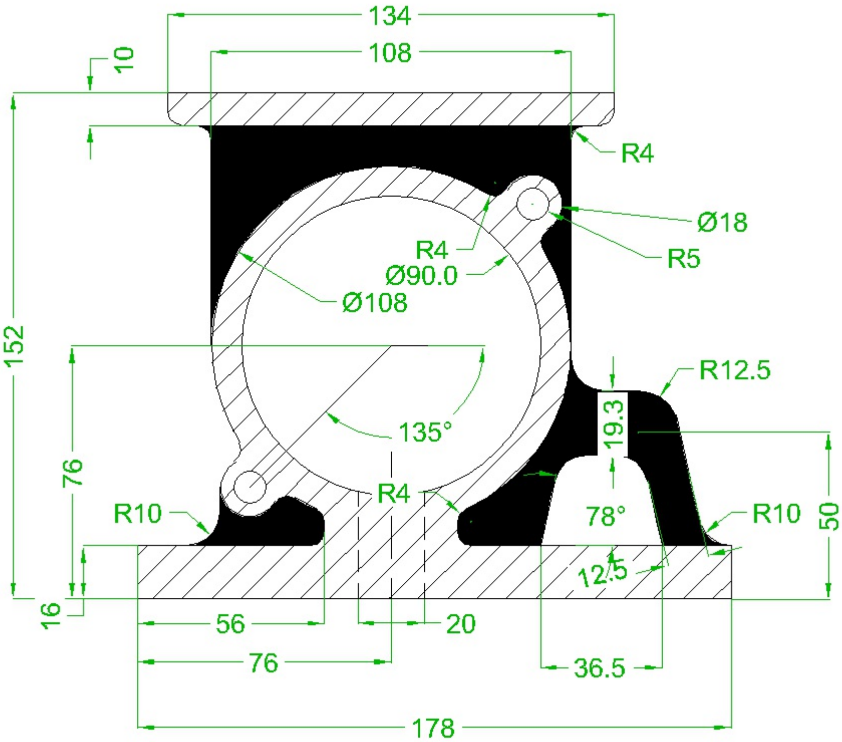


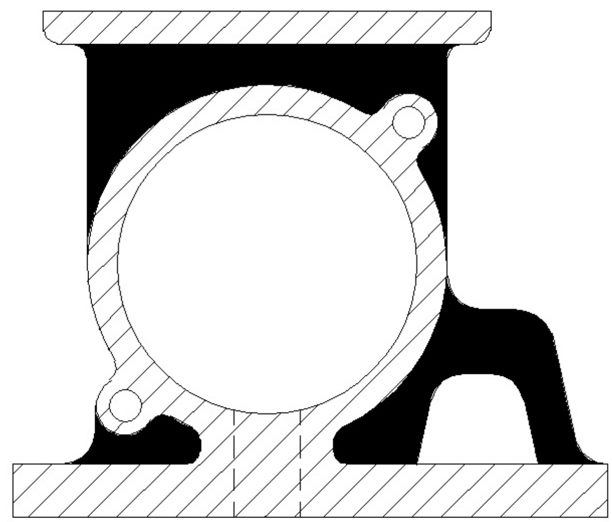


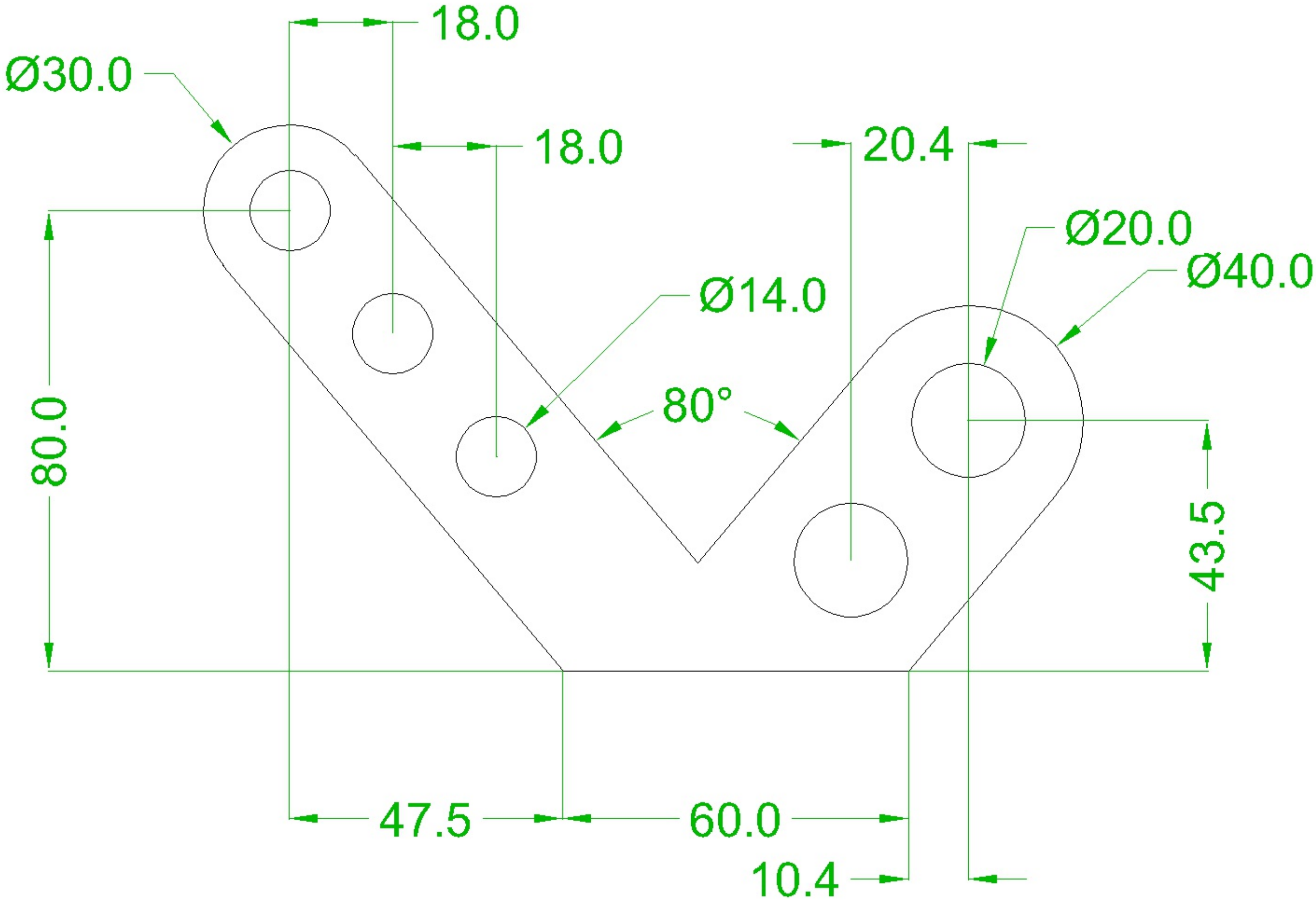
225
37
R10
R15
45°
Ø 137
R225
47
R15
R10
Ø 88
Ø 130
27

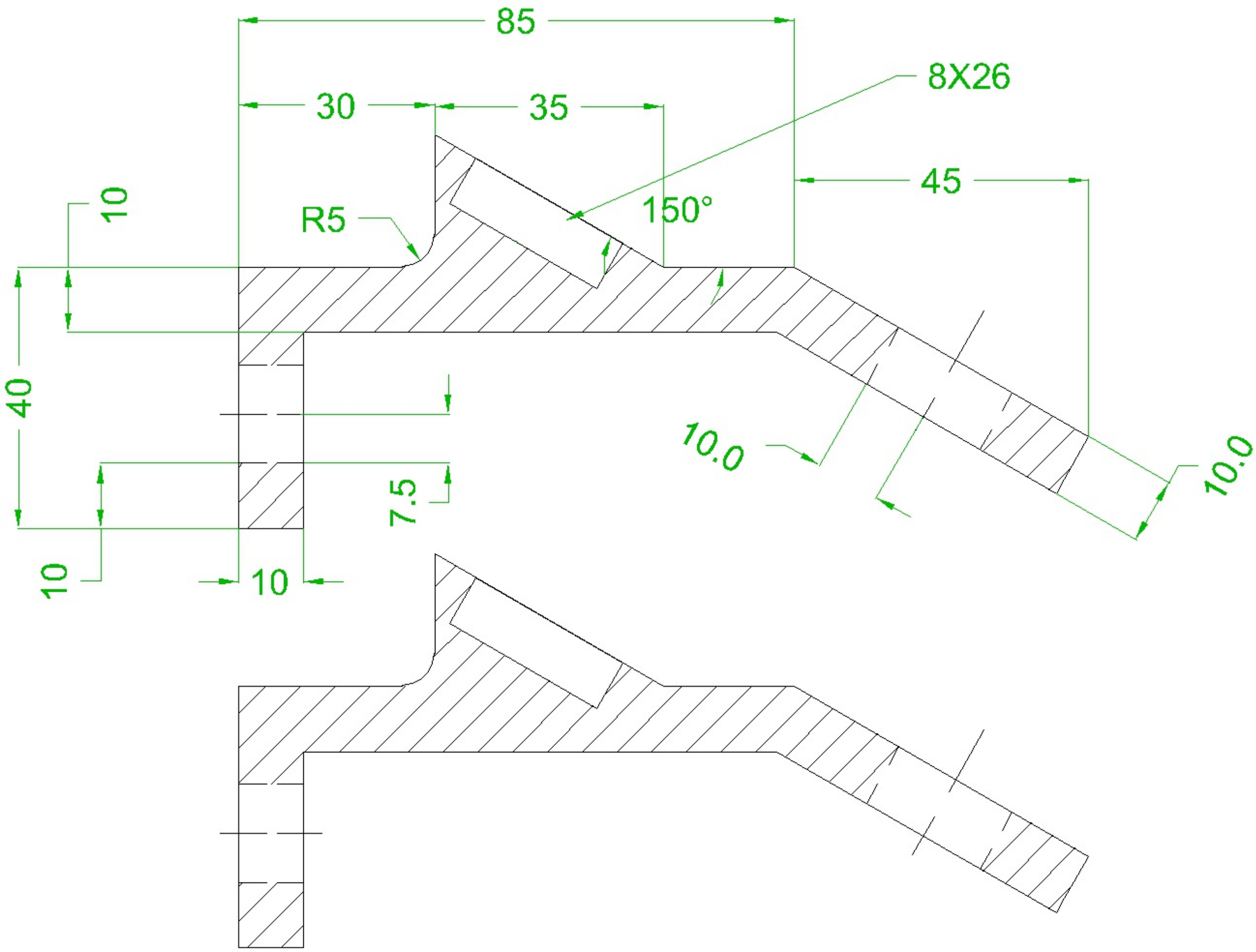


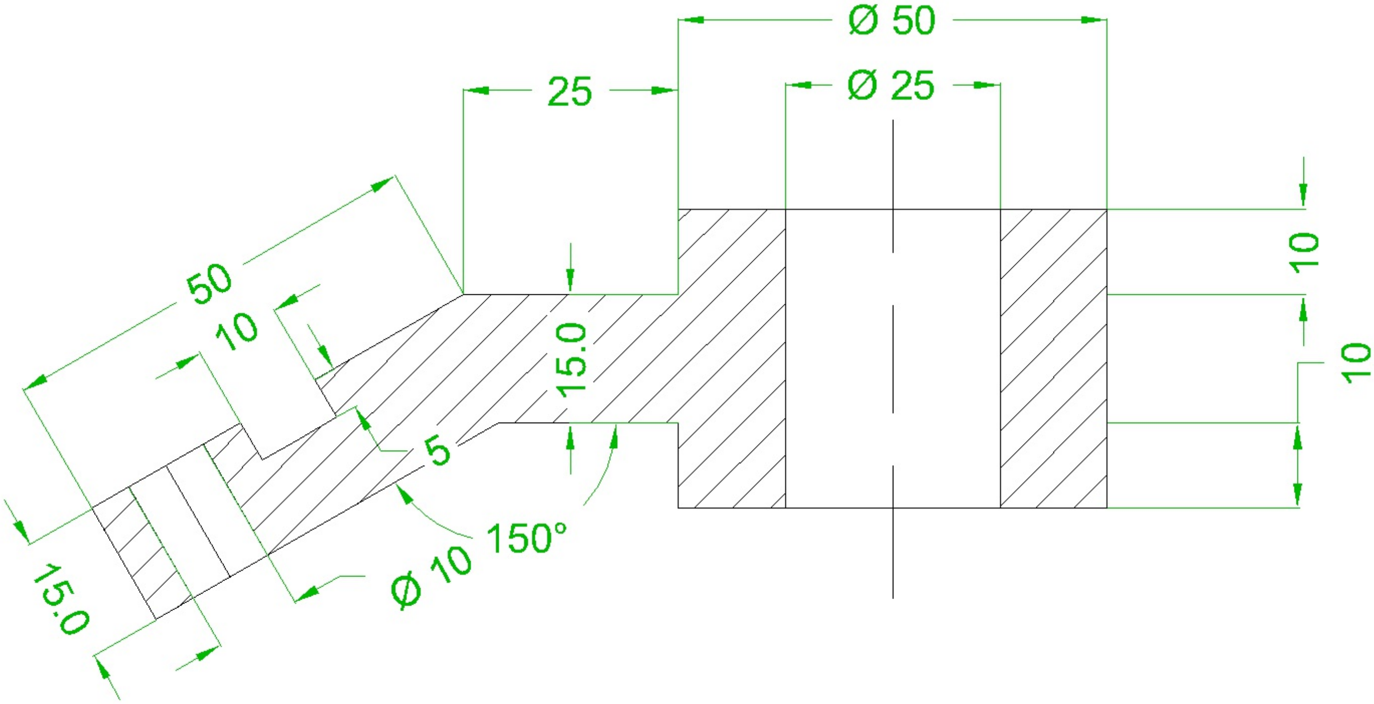

R15
23.7
120
Ø15
15
45°
165.0
102
50
100
Ø30.0
35
45.0
R6.3

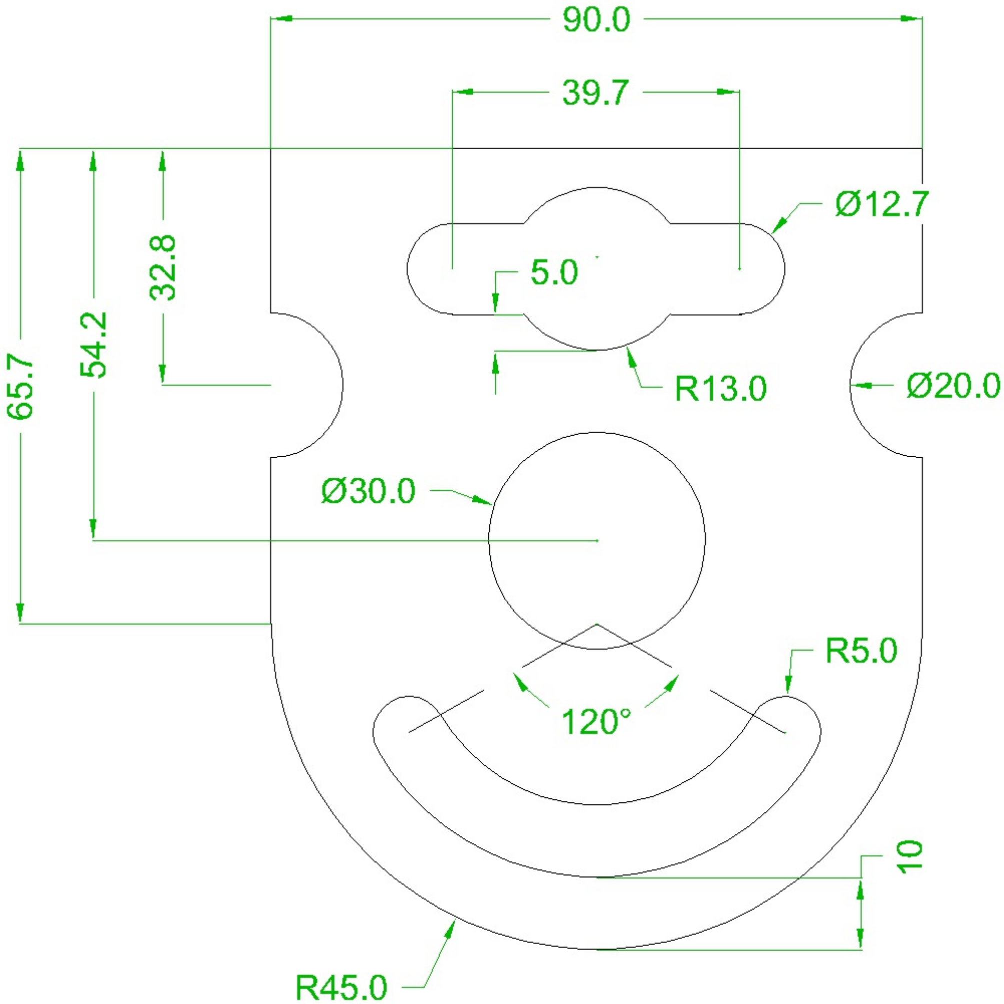

134
108
10
R4
Ø18
R4
R5
Ø90.0
Ø108
152
R12.5
76
19.3
135°
50
R4
R10
R10
78°
12.5
16
56
20
76
36.5
178



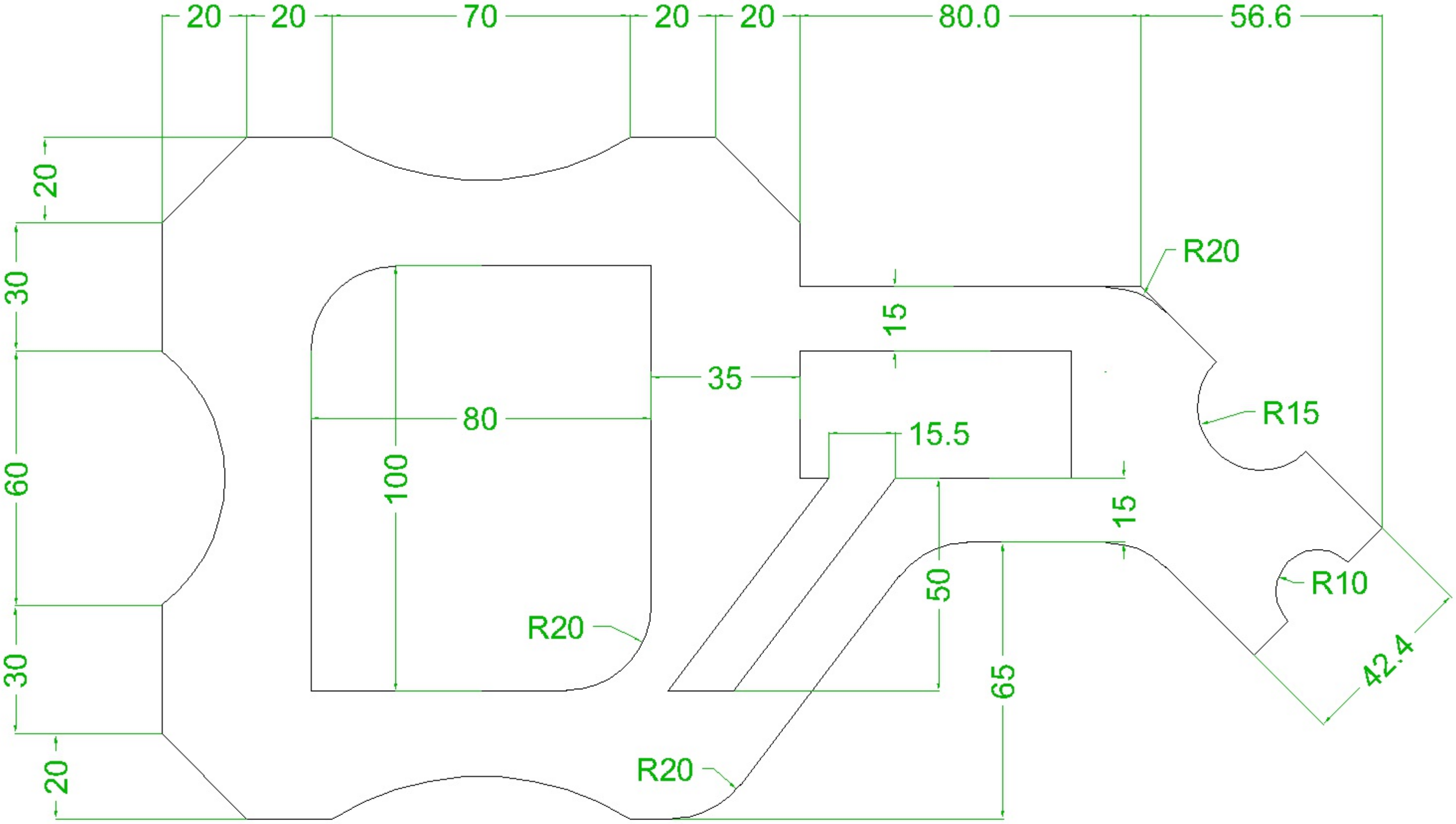

18.0
Ø30.0
18.0
20.4
Ø20.0
Ø40.0
Ø14.0
80°
80.0
43.5
47.5
60.0
10.4


85
30
35
8X26
45
10
R5
150°
40
10.0
10.0
7.5
10
10

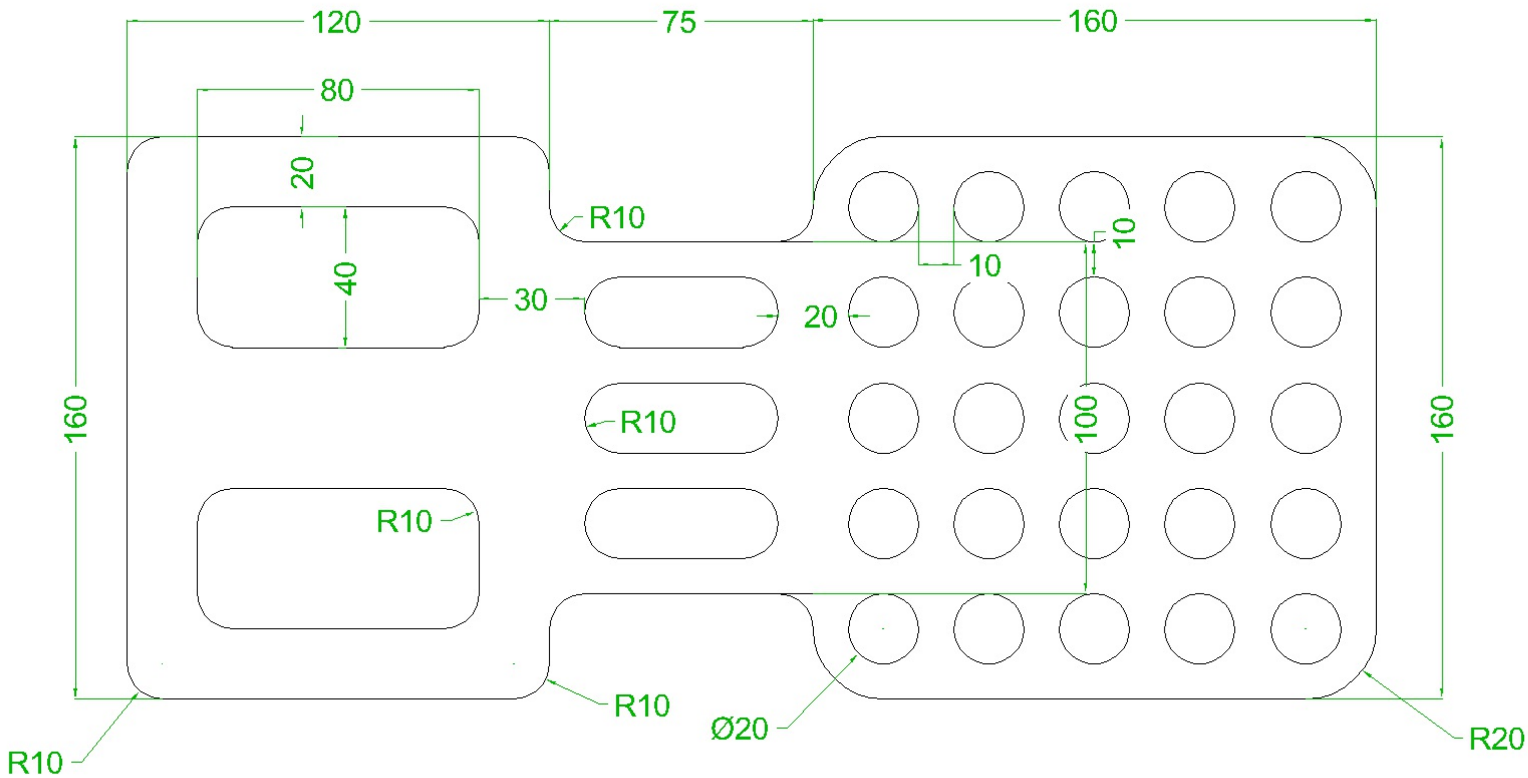

Ø 50
25
Ø 25
50
10
15.0
10
10
5
150°
Ø 10
15.0

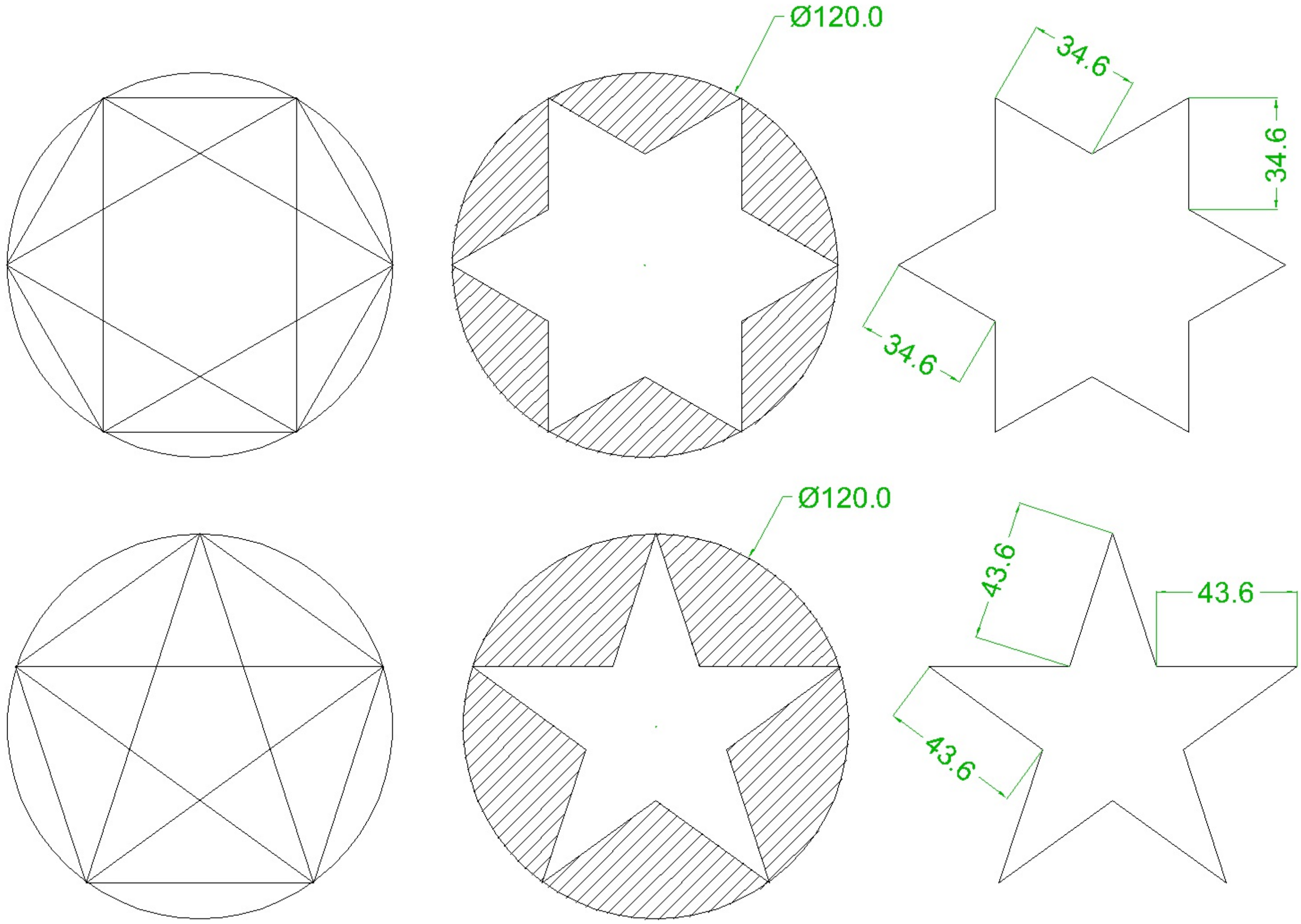


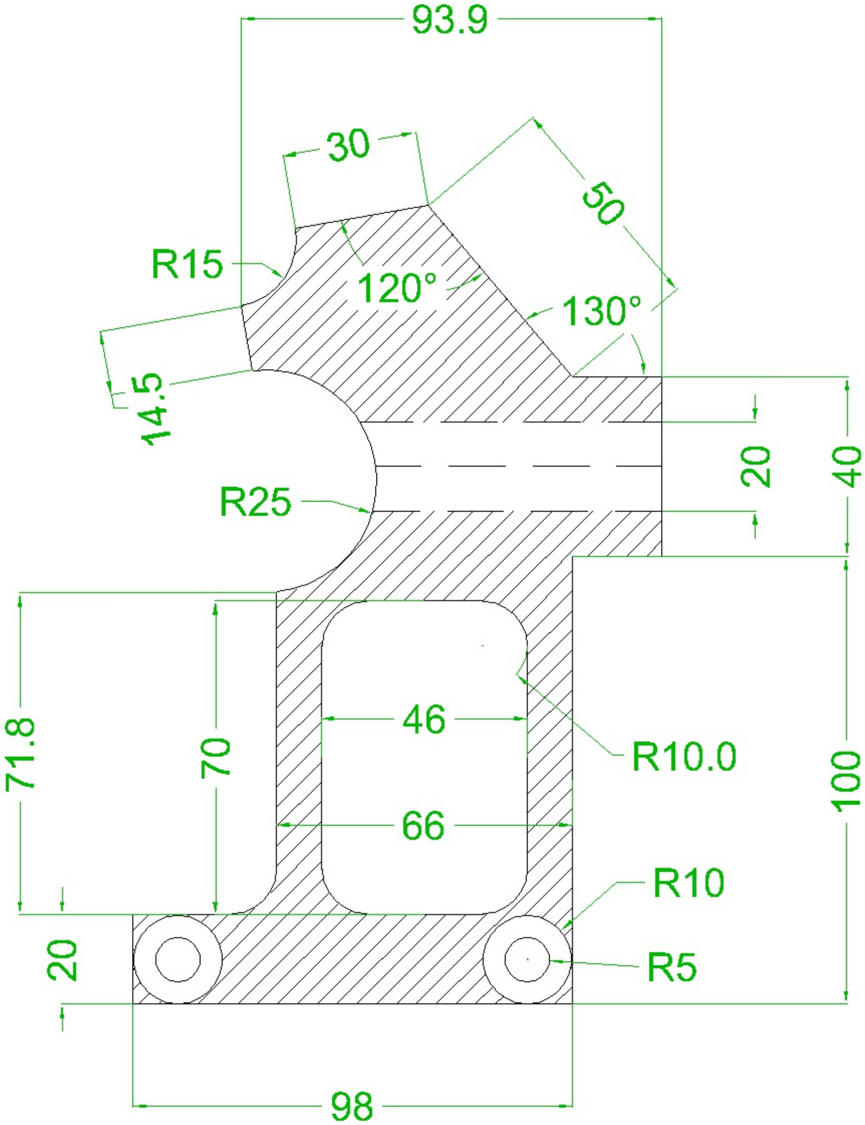
90.0
39.7
Ø12.7
32.8
54.2
65.7
5.0
R13.0
Ø20.0
Ø30.0
R5.0
120°
10
R45.0

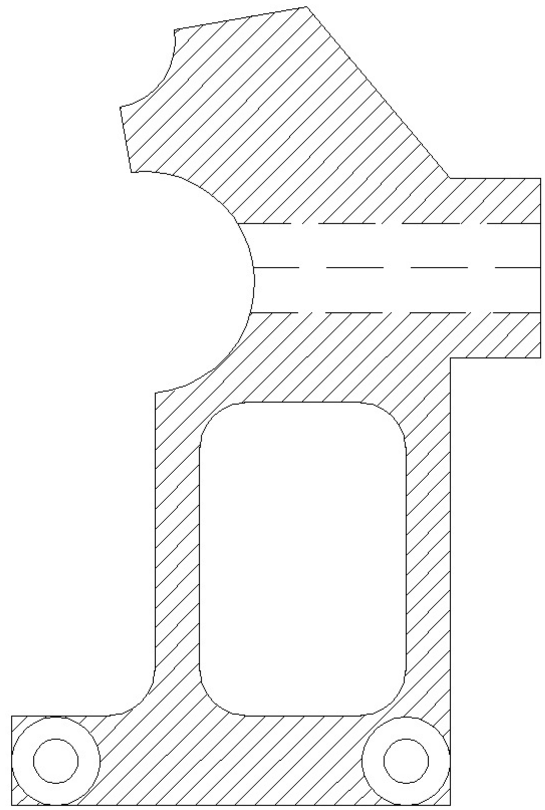


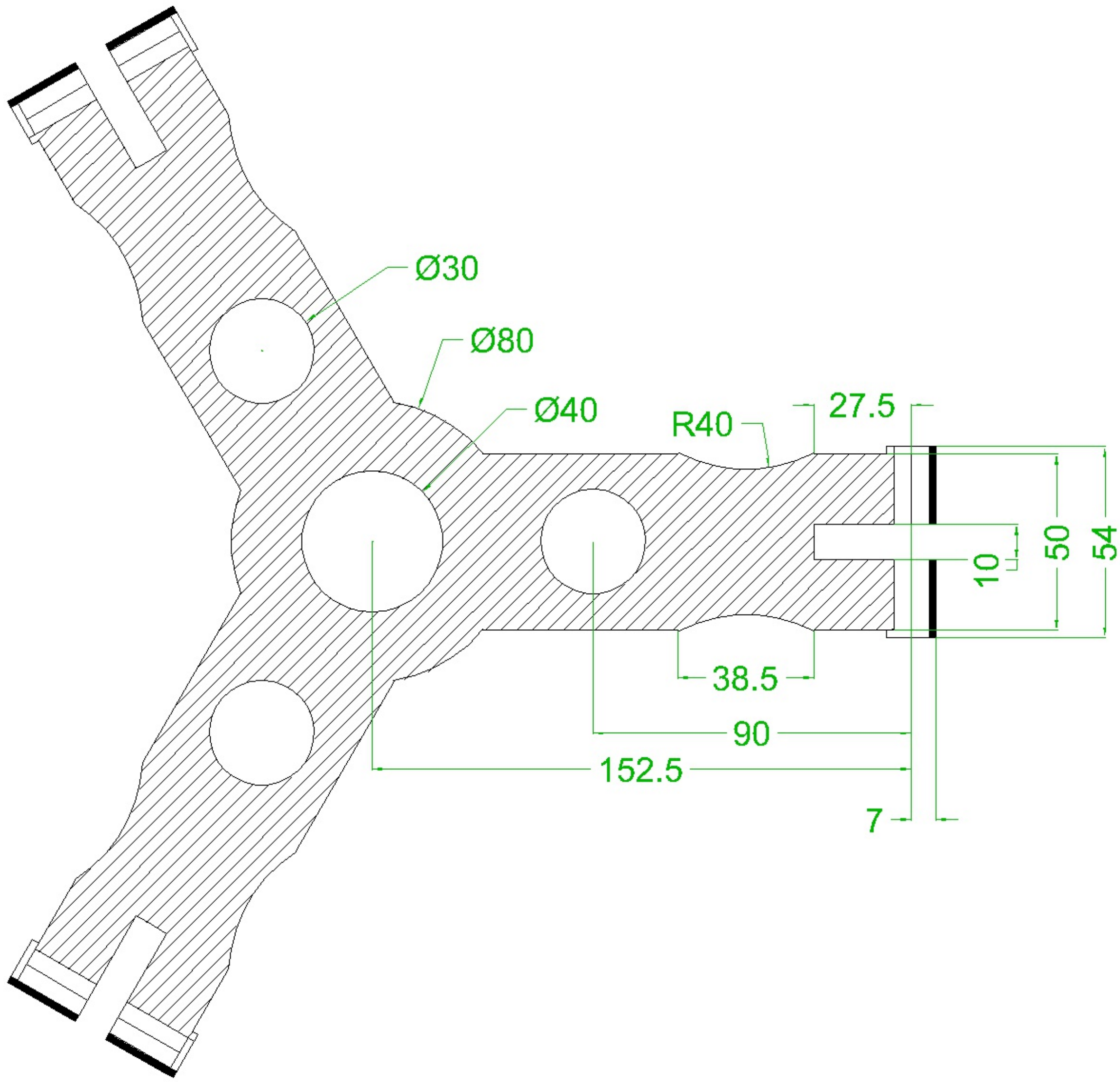
20
20
70
20
20
80.0
56.6
20
30
60
30
20
R20
15
35
80
100
R15
15.5
15
50
R10
R20
65
42.4
R20


120
75
160
80
20
R10
40
30
20
10
10
R10
100
160
160
R10
R10
R10
Ø20
R20
R10


Ø120.0
34.6
34.6
34.6
Ø120.0
43.6
43.6
43.6

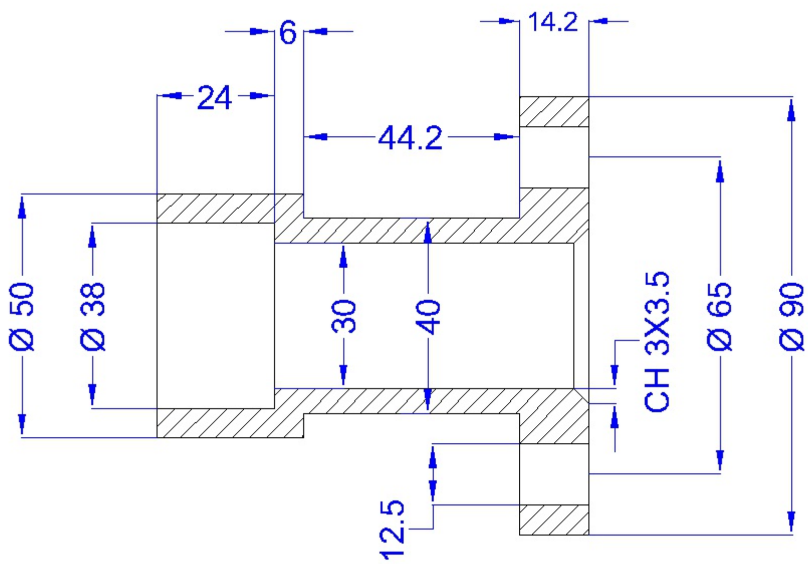

93.9
30
50
R15
120°
130°
14.5
R25
20
40
71.8
70
46
R10.0
66
100
R10
20
R5
98

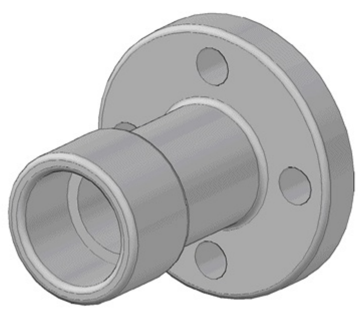


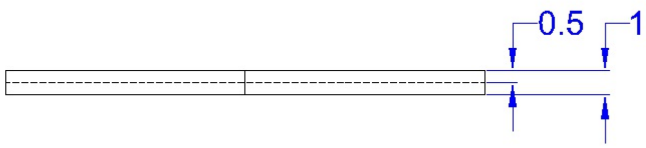


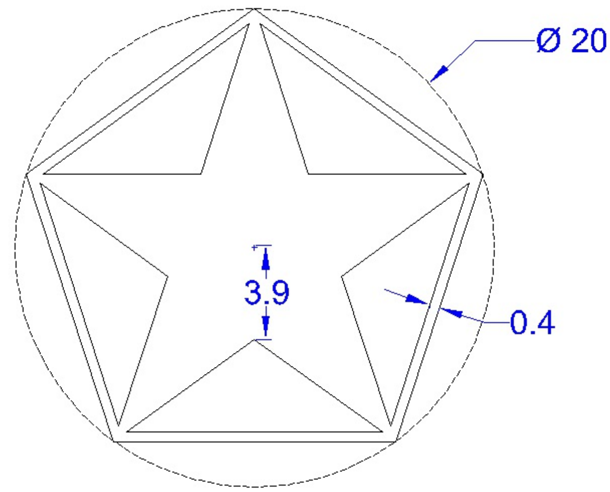
Ø30
Ø80
Ø40
R40
27.5
50
54
10
38.5
90
152.5
7

3D Exercises

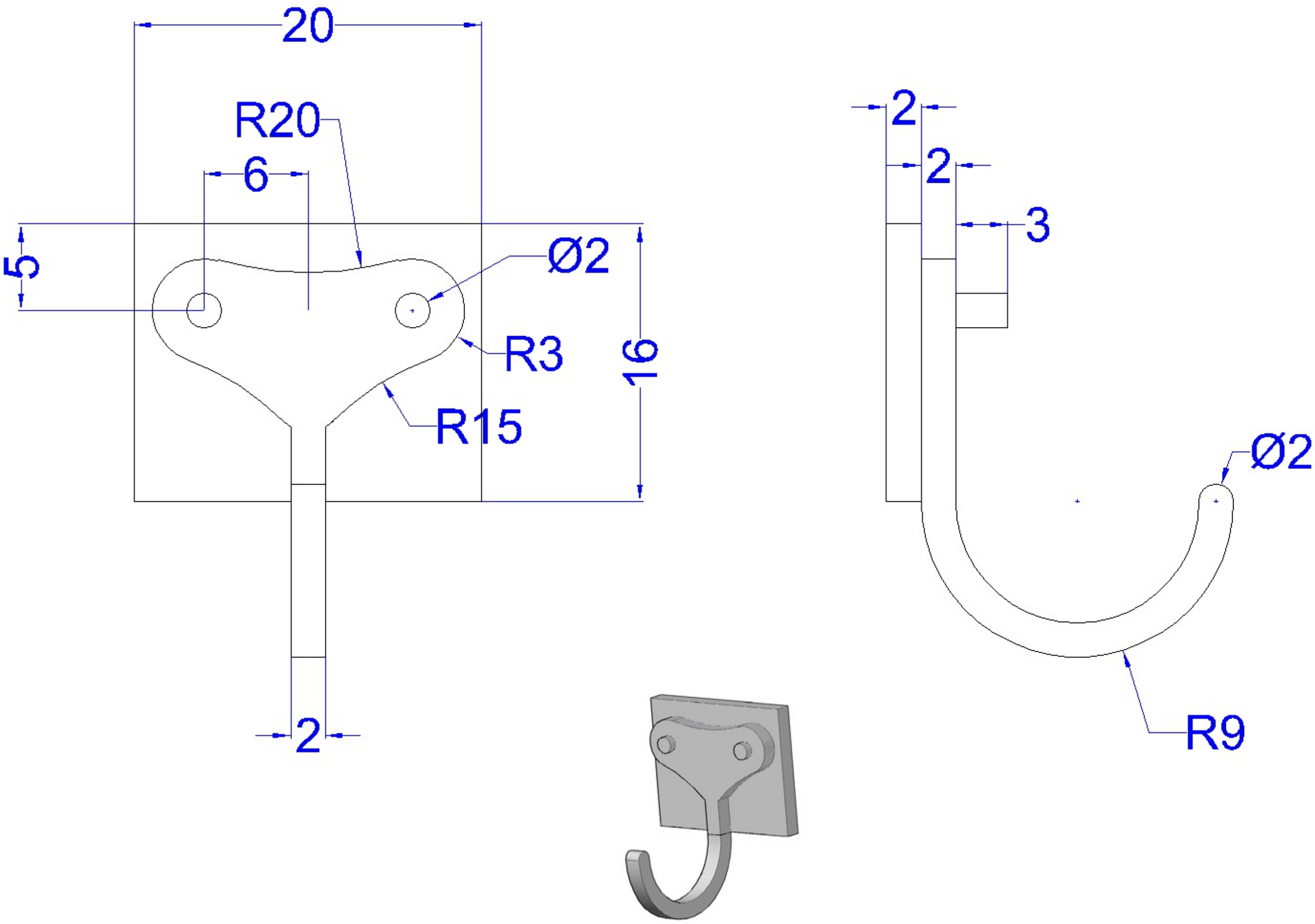

6
14.2
24
44.2
Ø 50
Ø 38
30
40
CH 3X3.5
Ø 65
Ø 90
12.5

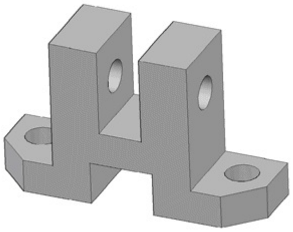


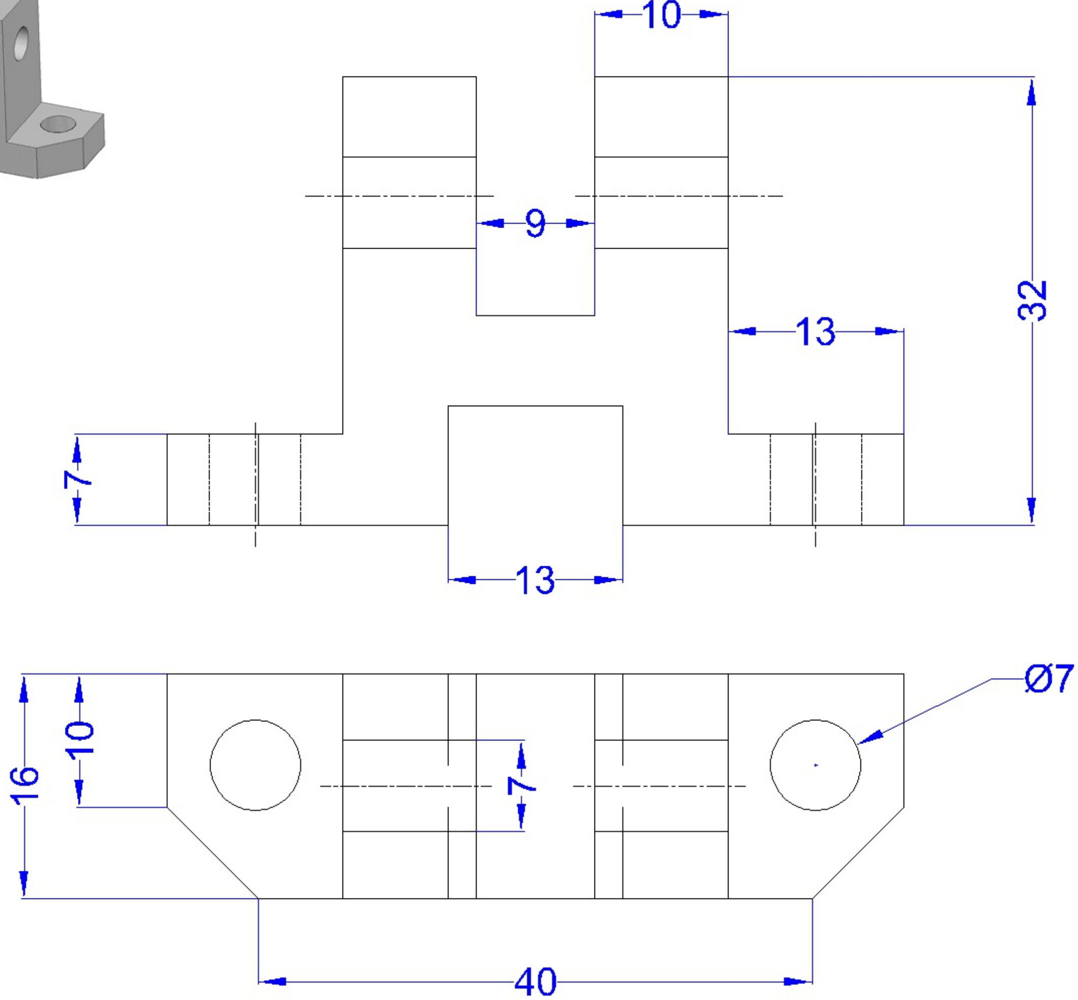

0.5
1

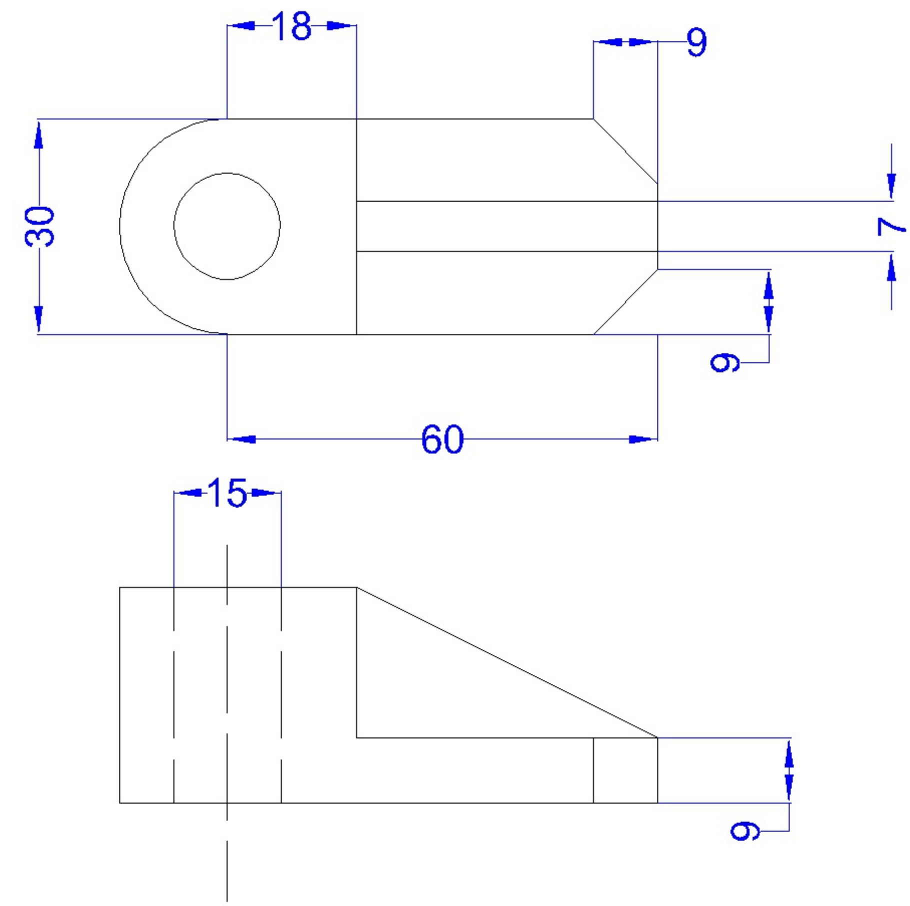

Ø 20
3.9
0.4

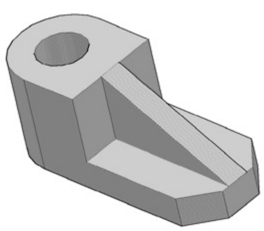


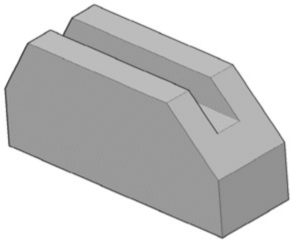

20
R20
6
5
Ø2
R3
16
R15
2
2
2
3
Ø2
R9

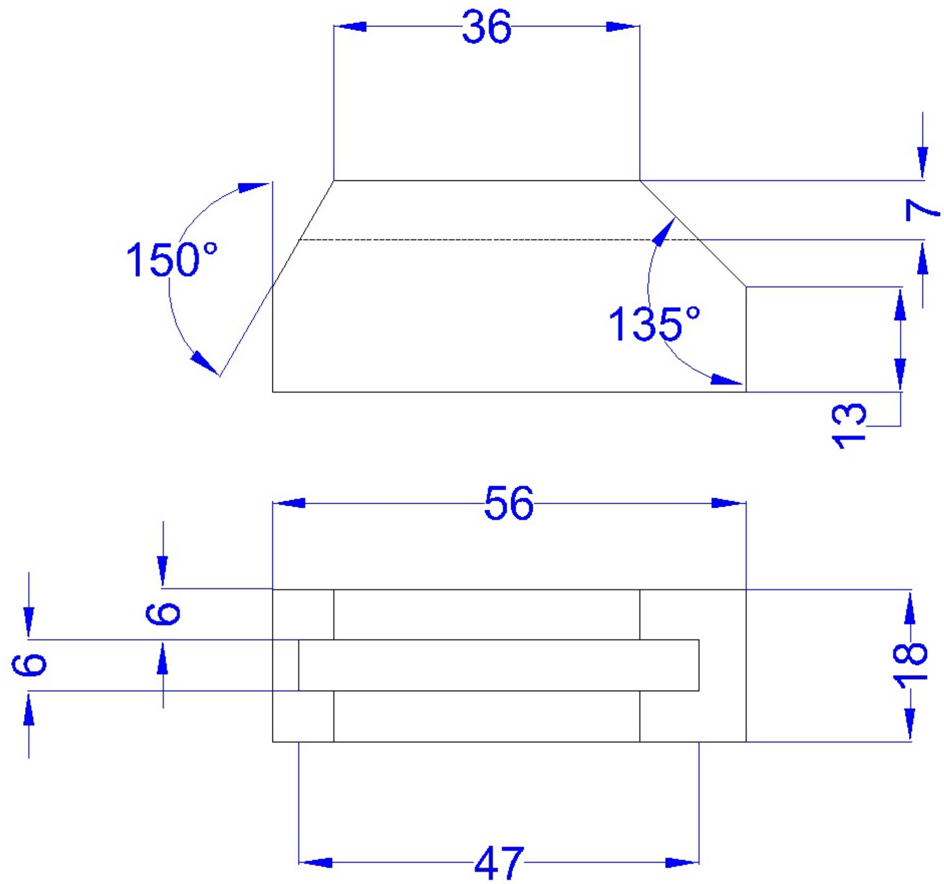



10
9
32
13
7
13
Ø7
16
10
7
40

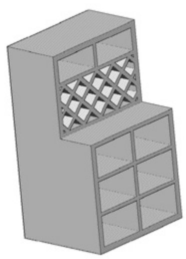

18
9
30
7
9
60
15
9

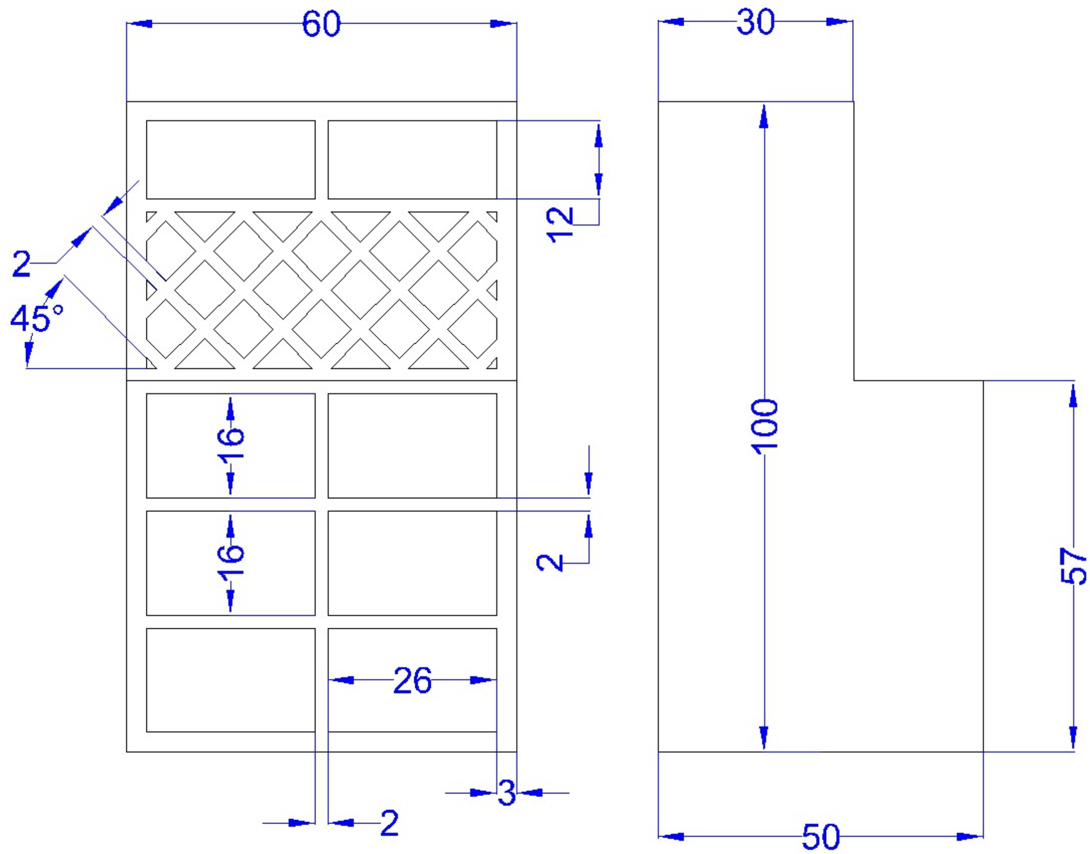




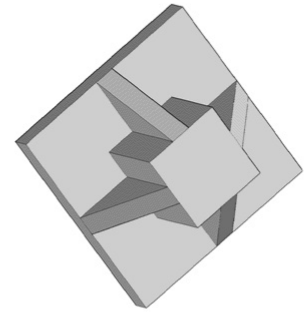


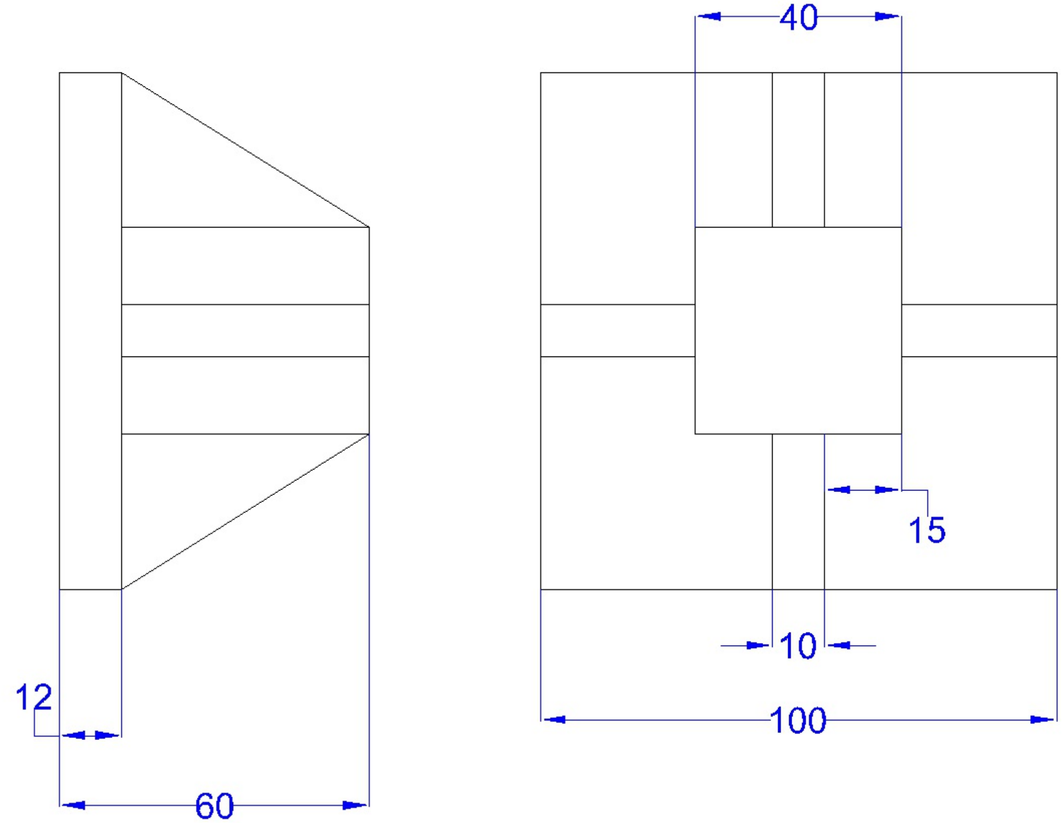
36
7
150°
135°
13
56
6
6
18
47

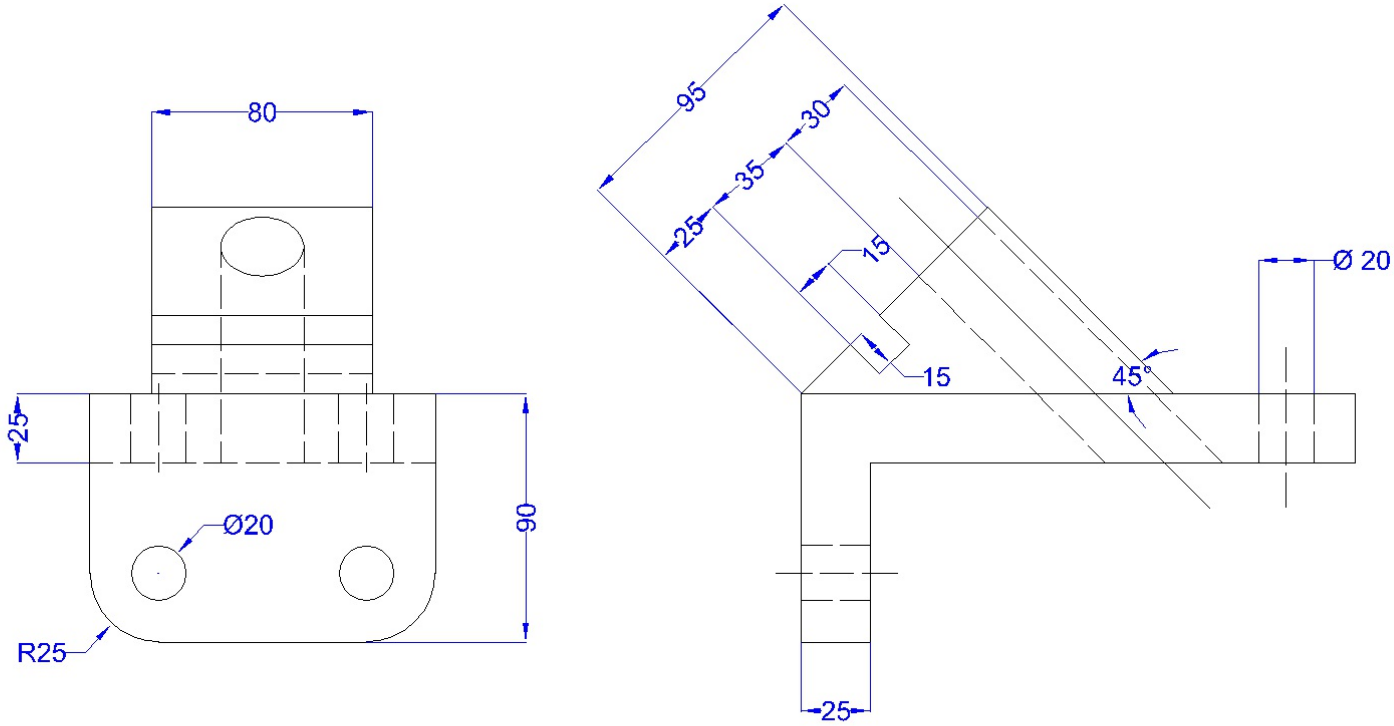


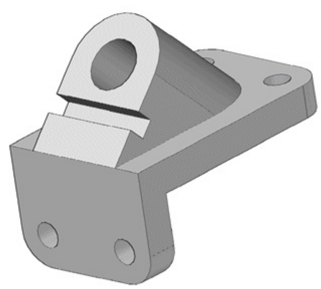


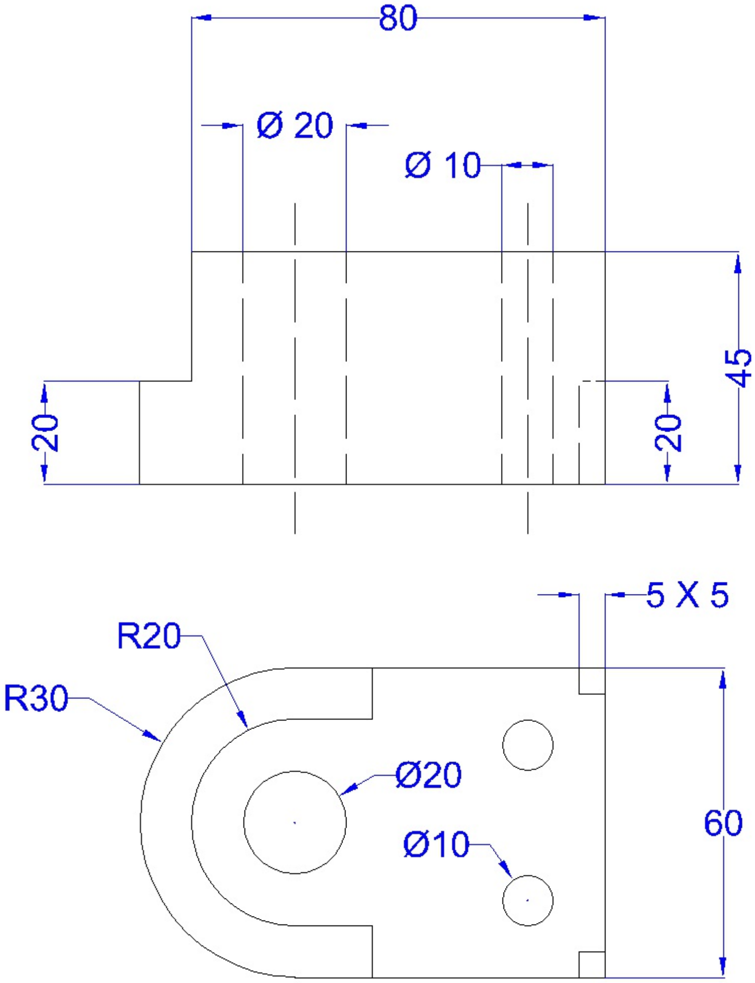
60
30
2
45°
12
16
16
2
100
57
26
3
2
50

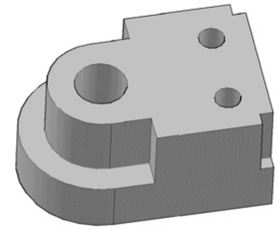


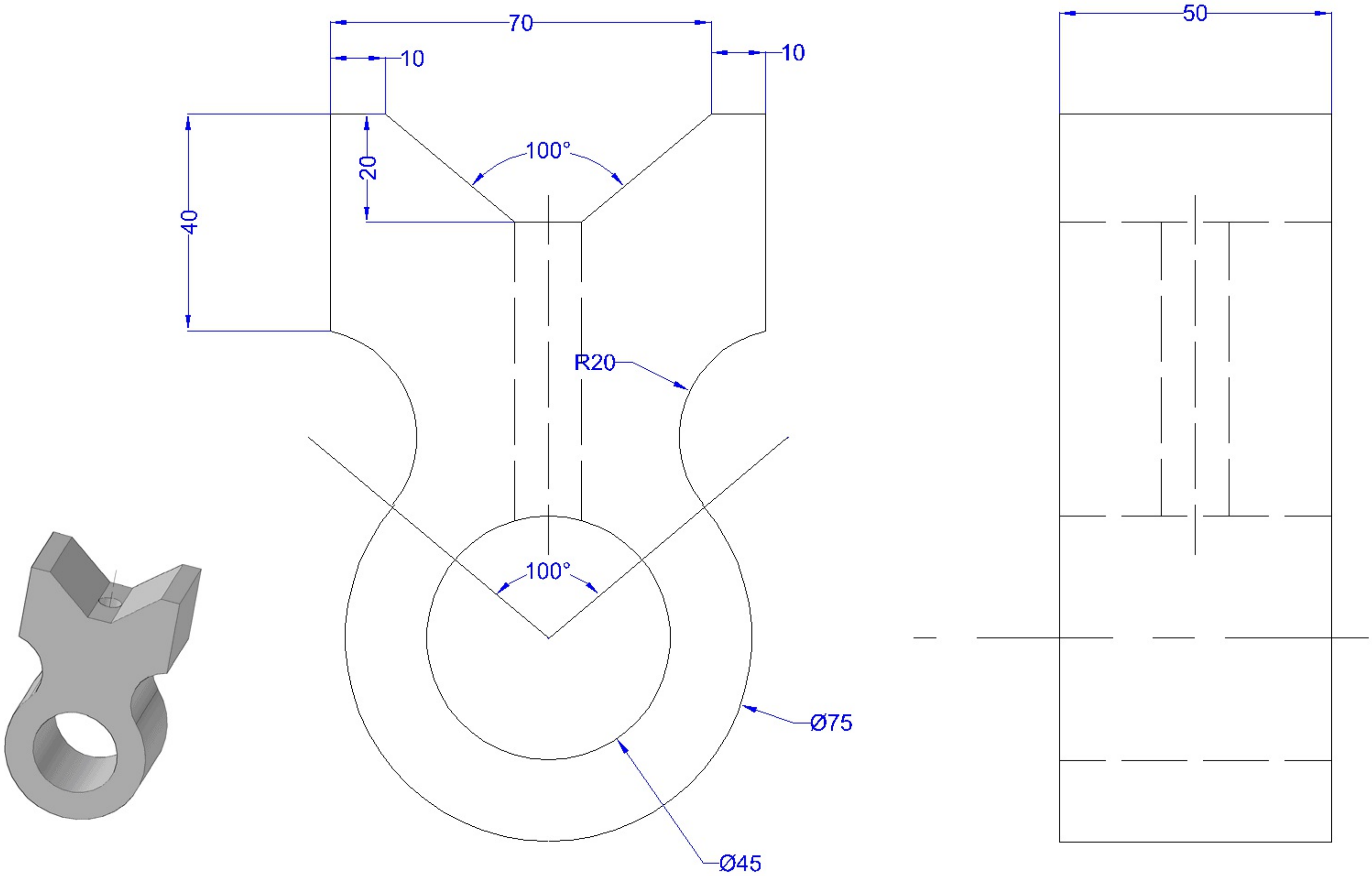

40
15
10
100
12
60


80
25
Ø20
90
R25
95
30
35
25
15
15
Ø 20
45°
25

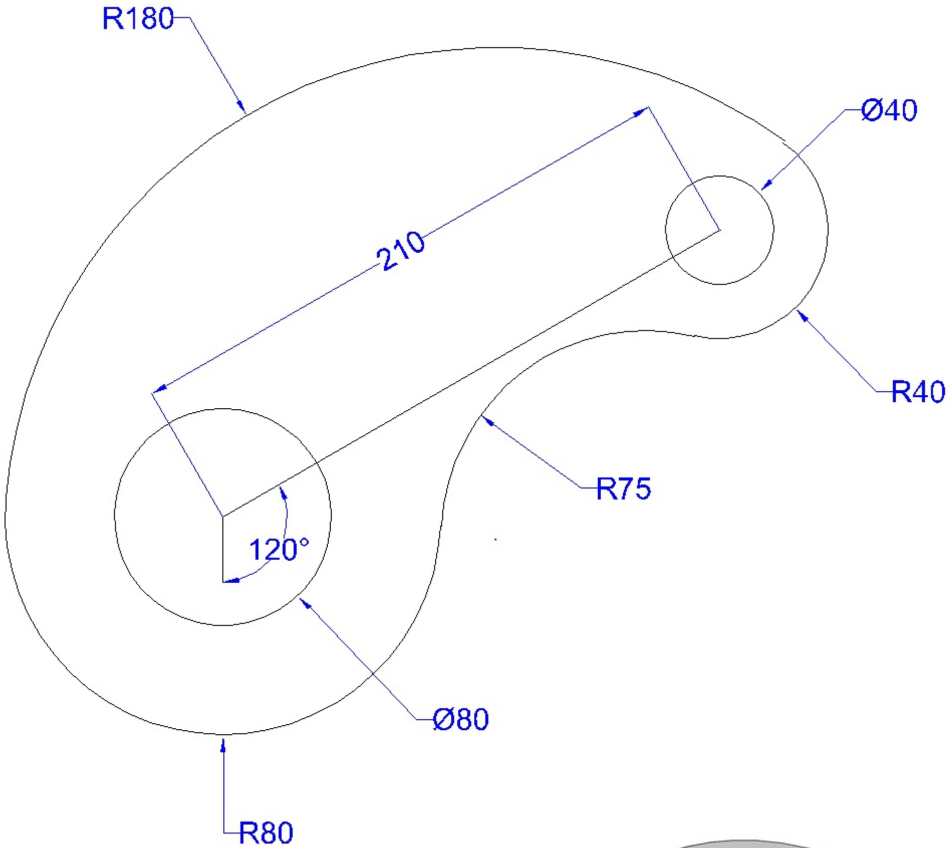


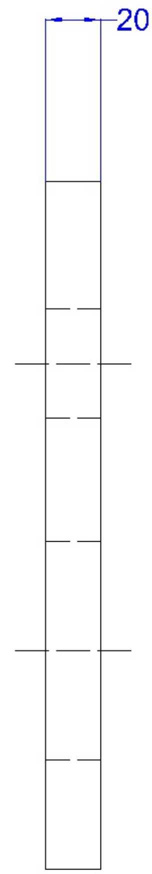

80
Ø 20
Ø 10
45
20
20
5 X 5
R20
R30
Ø20
Ø10
60

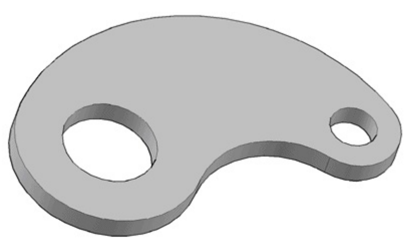


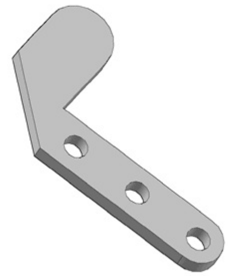


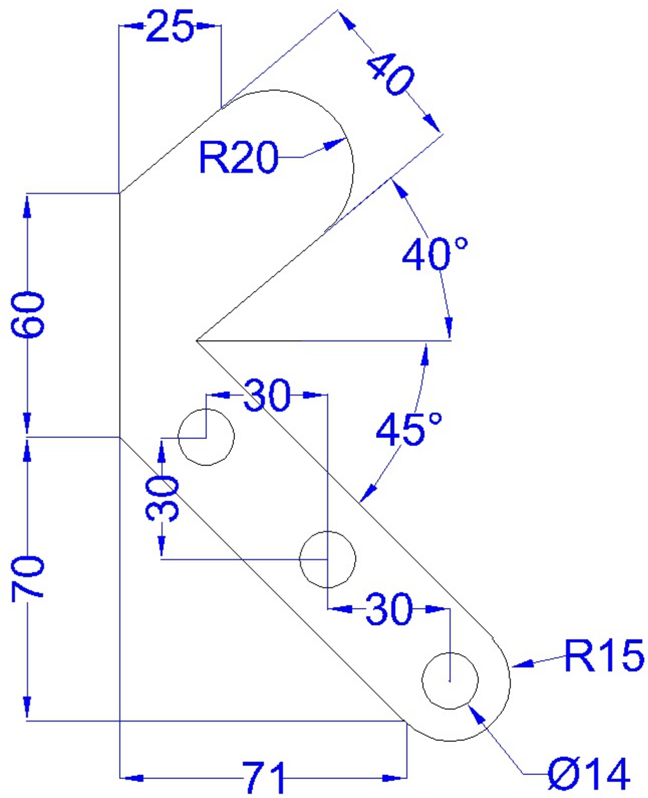
70
10
10
50
100°
20
40
R20
100°
Ø75
Ø45

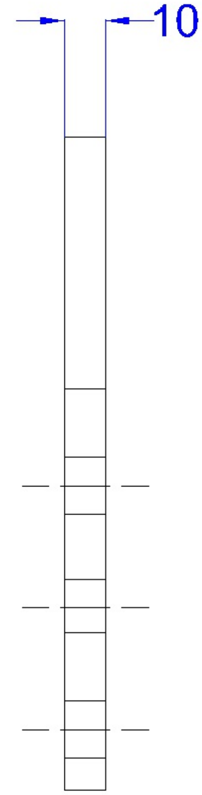

R180
Ø40
210
R40
R75
120°
Ø80
R80

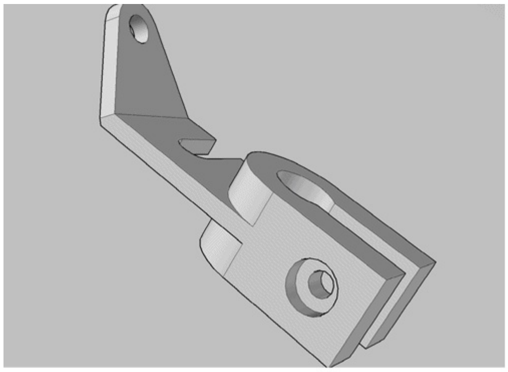

20

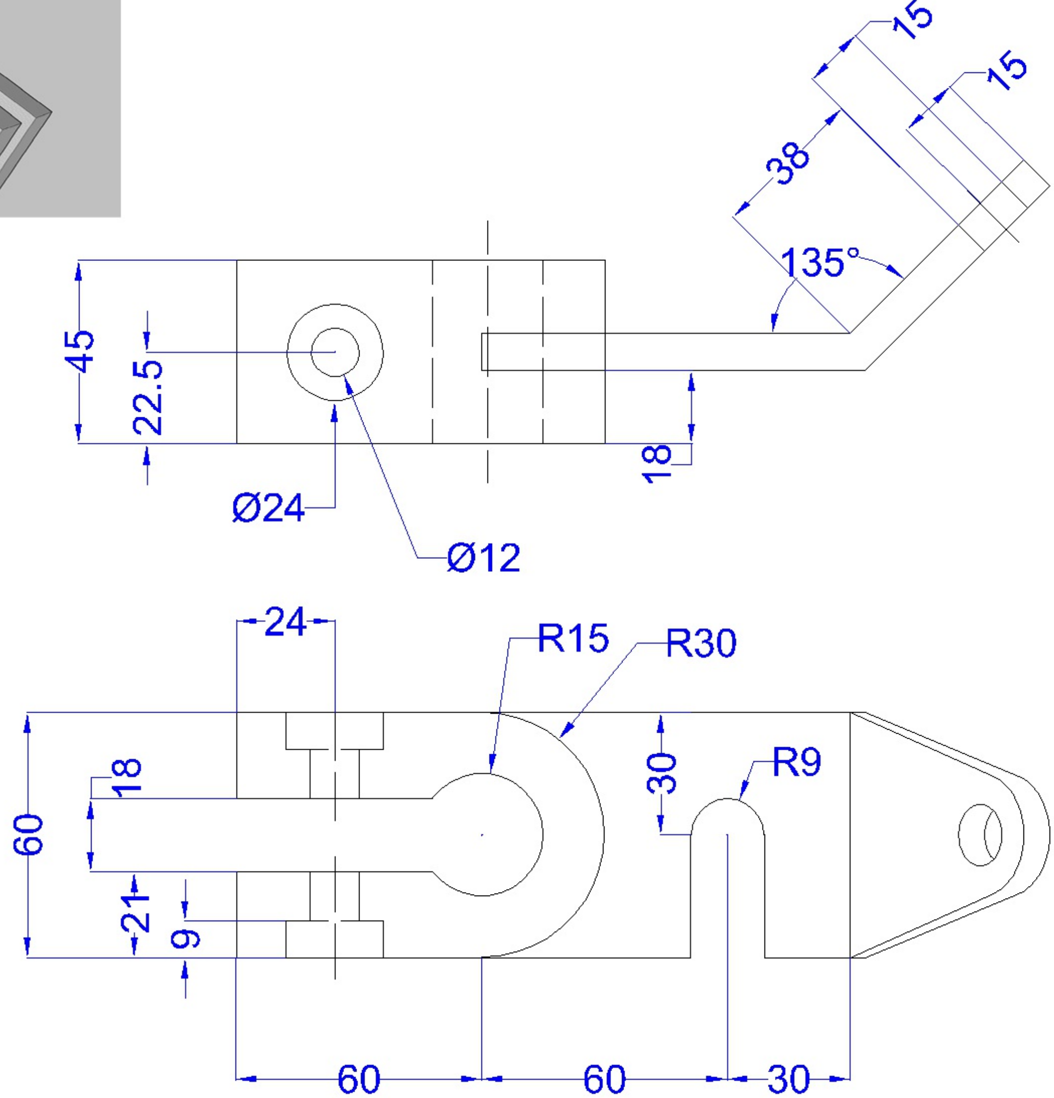


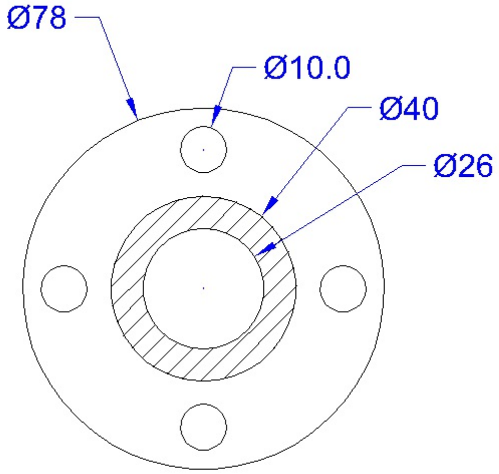


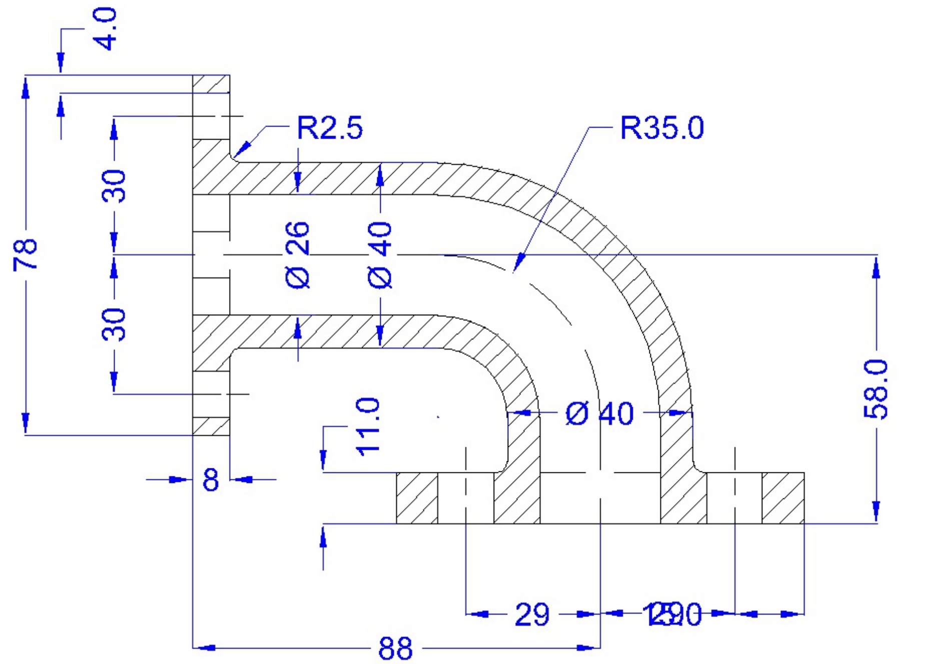

25
40
R20
40°
60
30
45°
30
70
30
R15
Ø14
71

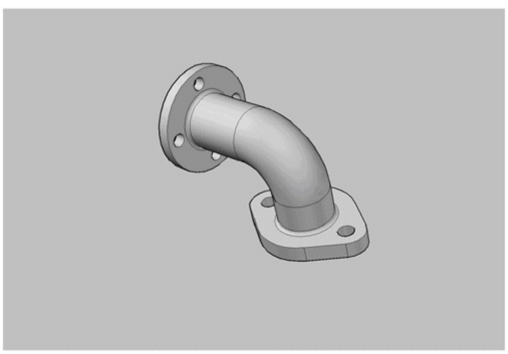

10

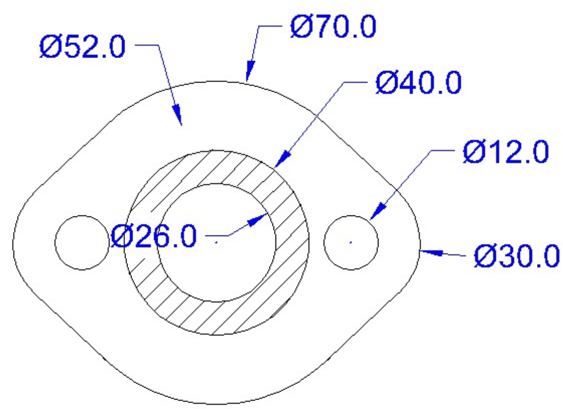


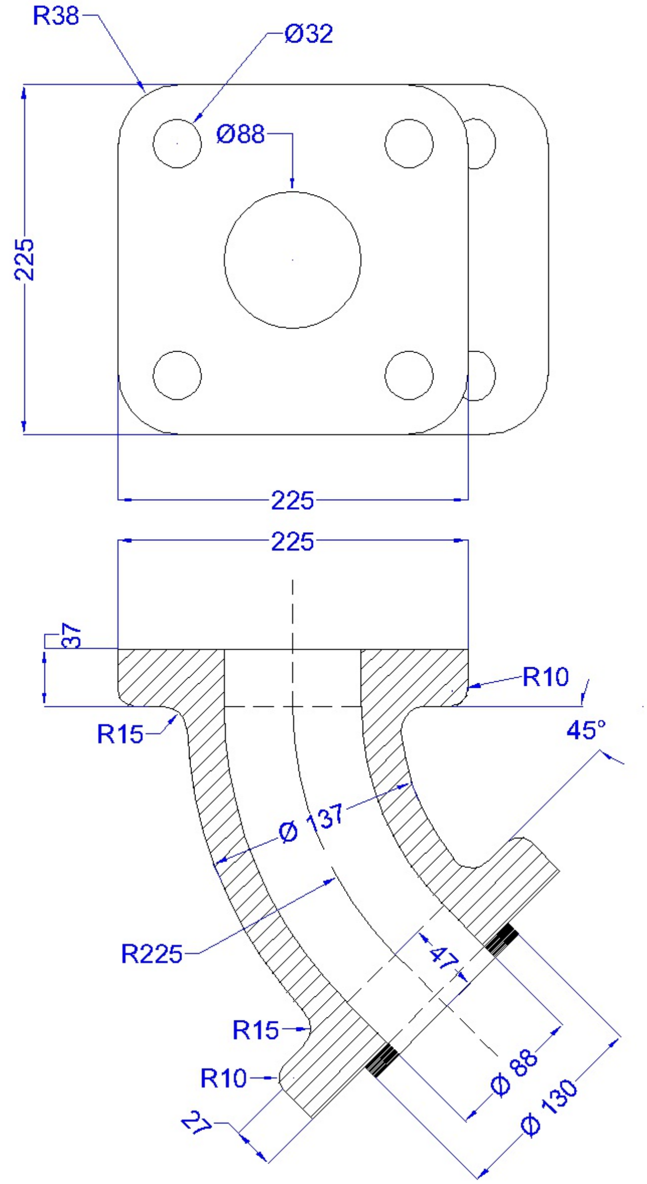

15
15
38
135°
45
22.5
18
Ø24
Ø12
24
R15
R30
R9
18
60
30
21
9
60
60
30

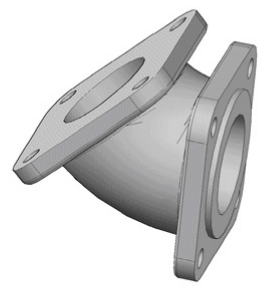

Ø78
Ø10.0
Ø40
Ø26

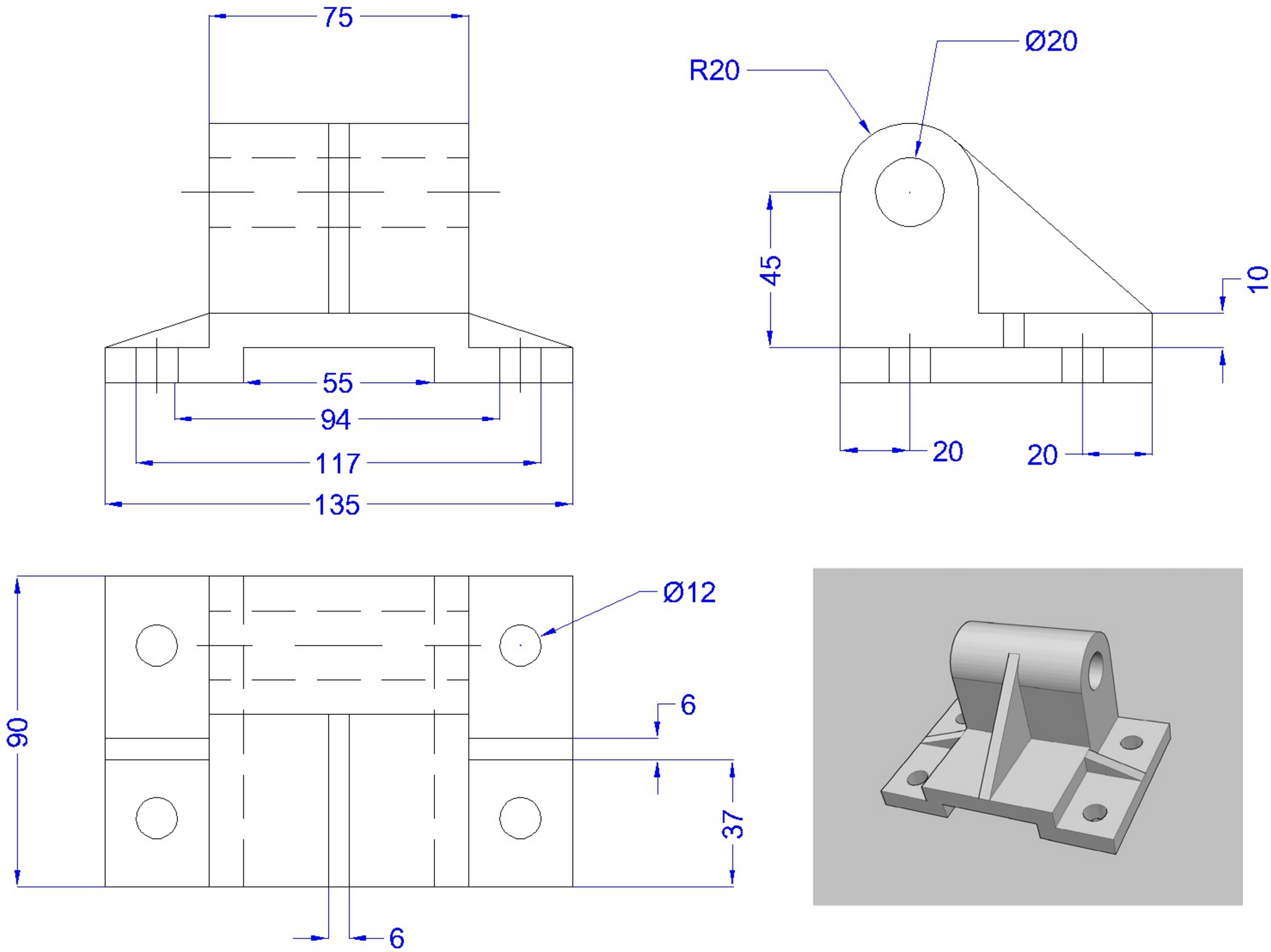

4.0
R2.5
R35.0
30
30
78
Ø 26
Ø 40
11.0
Ø 40
58.0
8
29
88

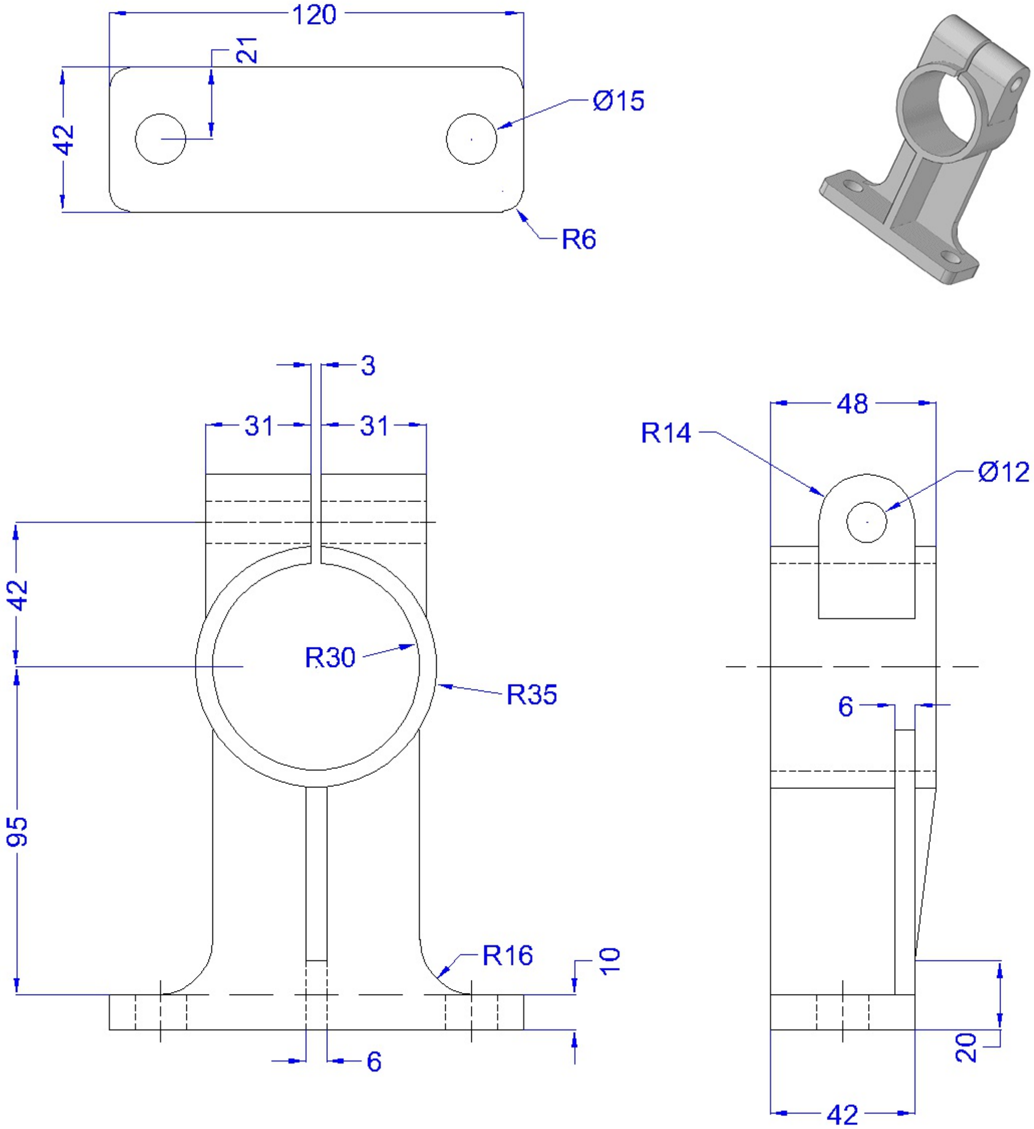


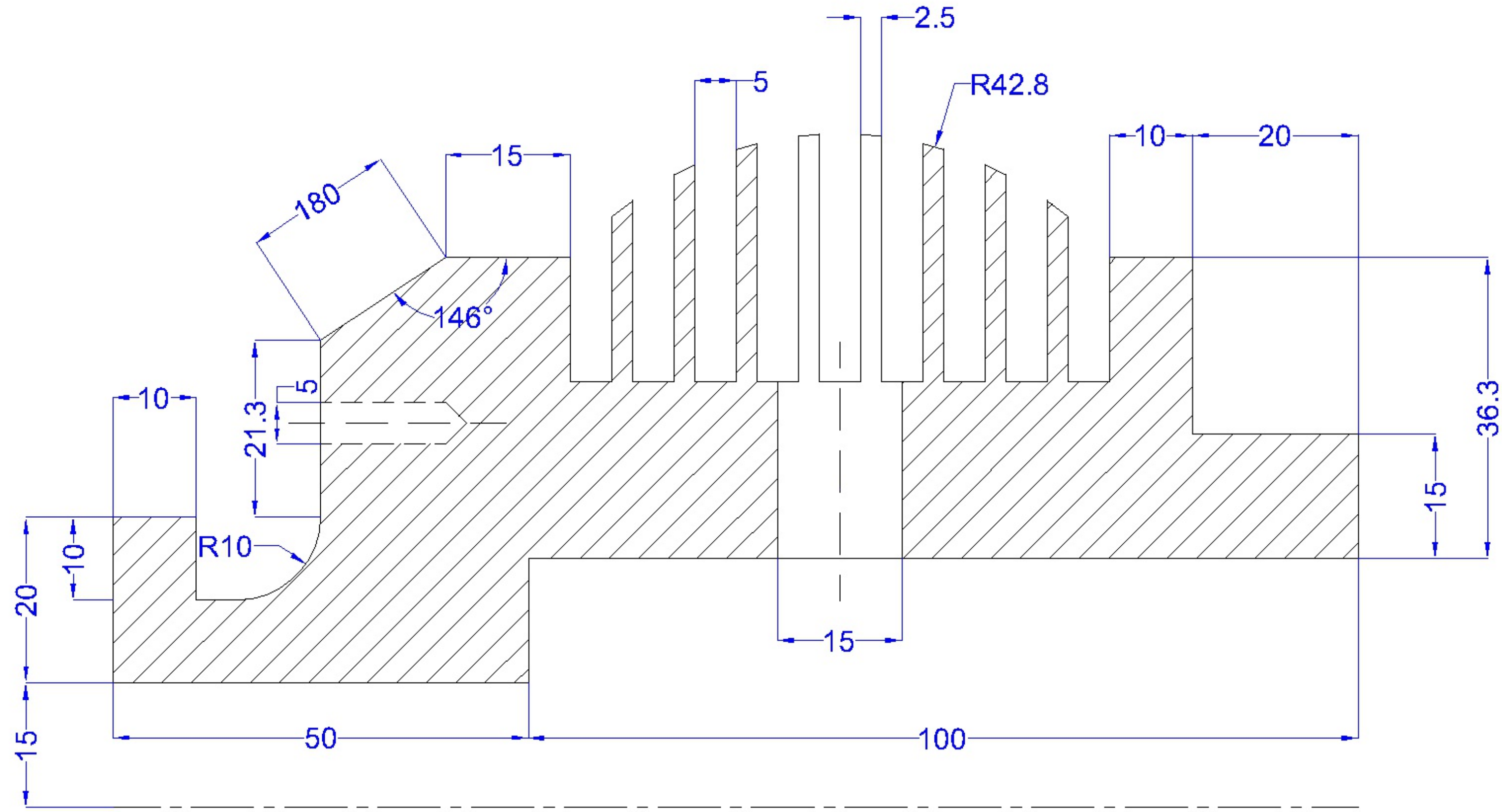

Ø52.0
Ø70.0
Ø40.0
Ø12.0
Ø26.0
Ø30.0

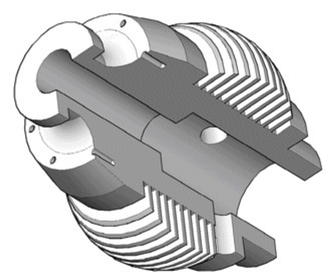

R38
Ø32
Ø88
225
225
225
37
R10
R15
45°
Ø 137
R225
47
R15
R10
Ø 88
Ø 130
27

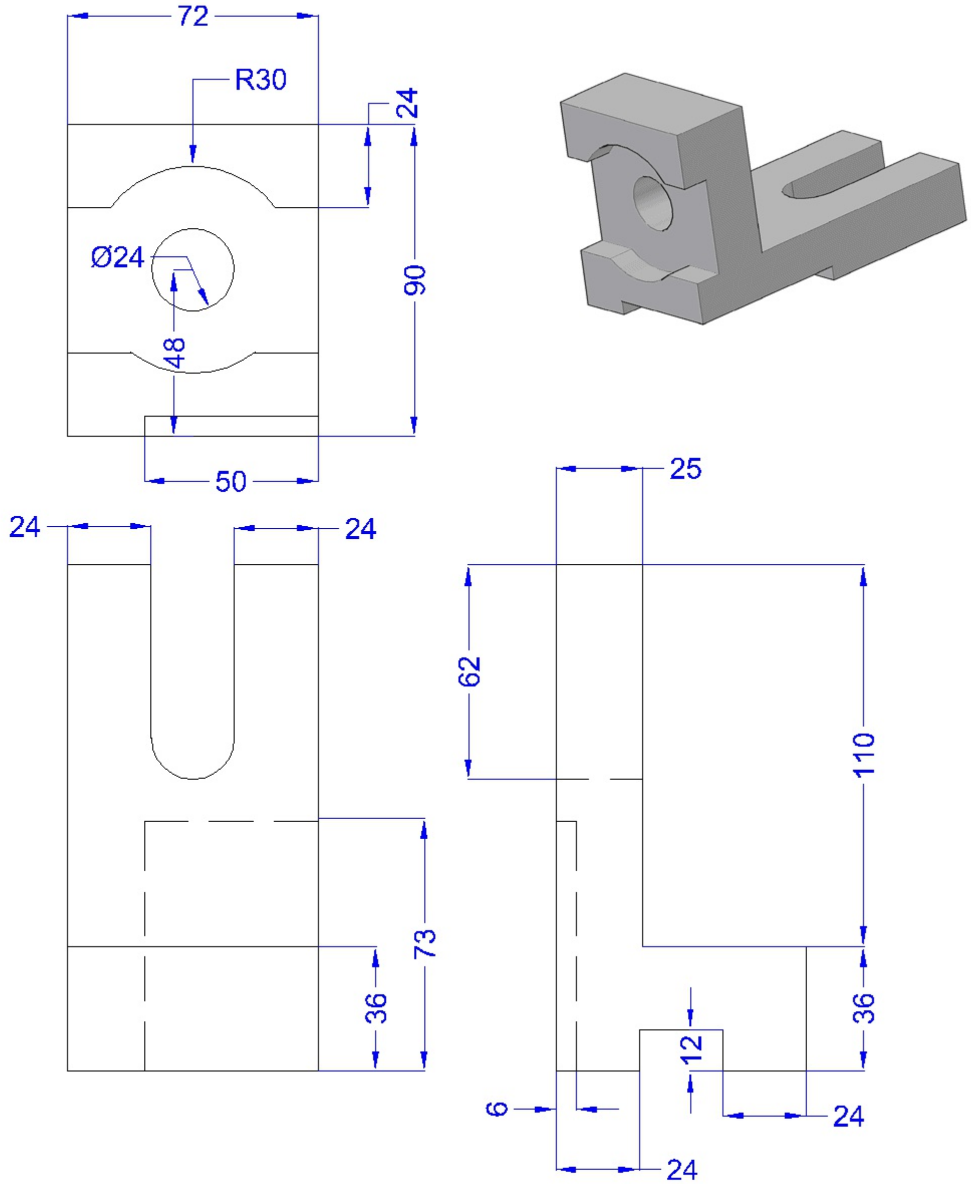



75
R20
Ø20
45
10
55
94
117
135
20
20
Ø12
90
6
37
6

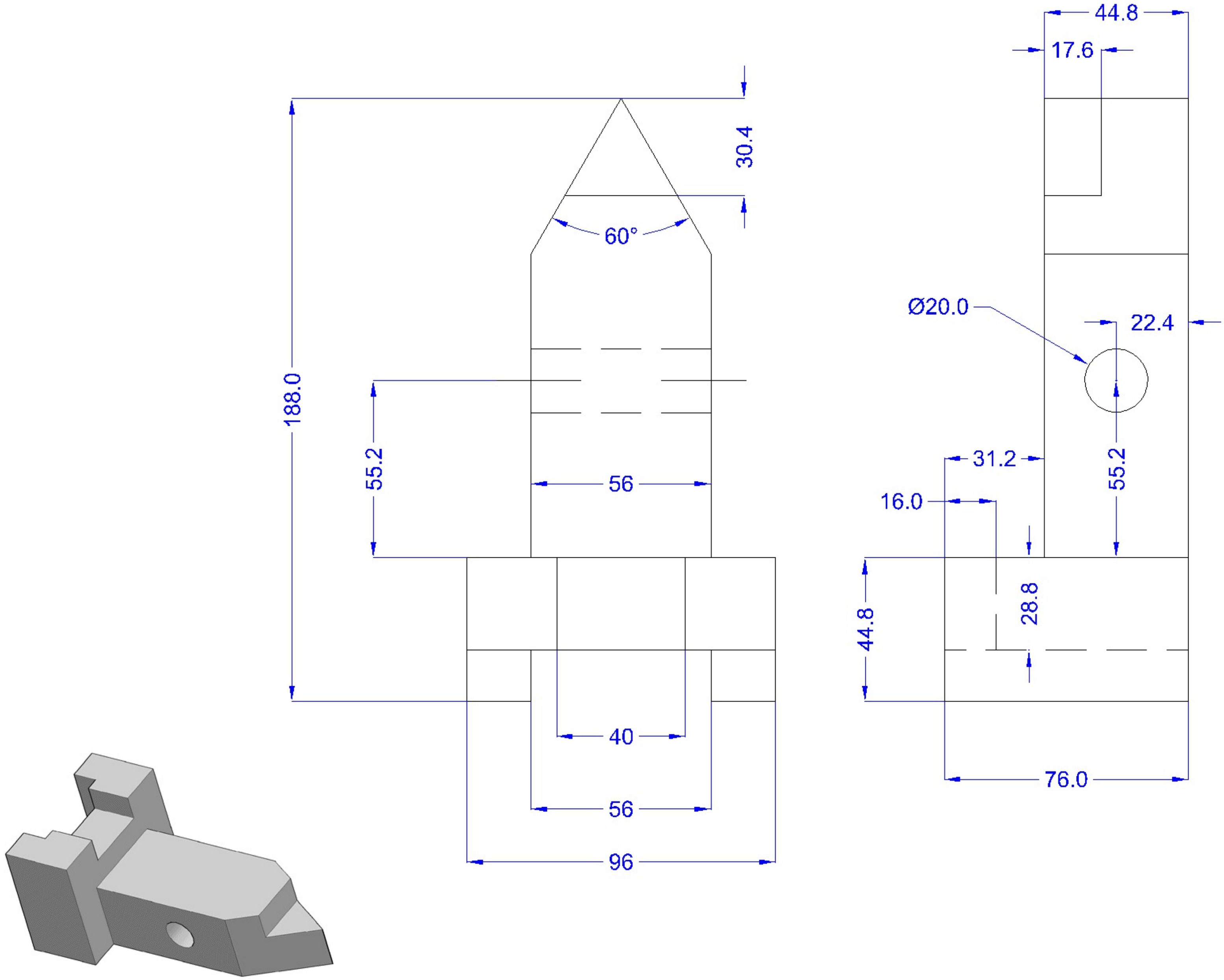

120
21
42
Ø15
R6
3
31
31
42
R30
R35
95
R16
10
6
48
R14
Ø12
6
20
42

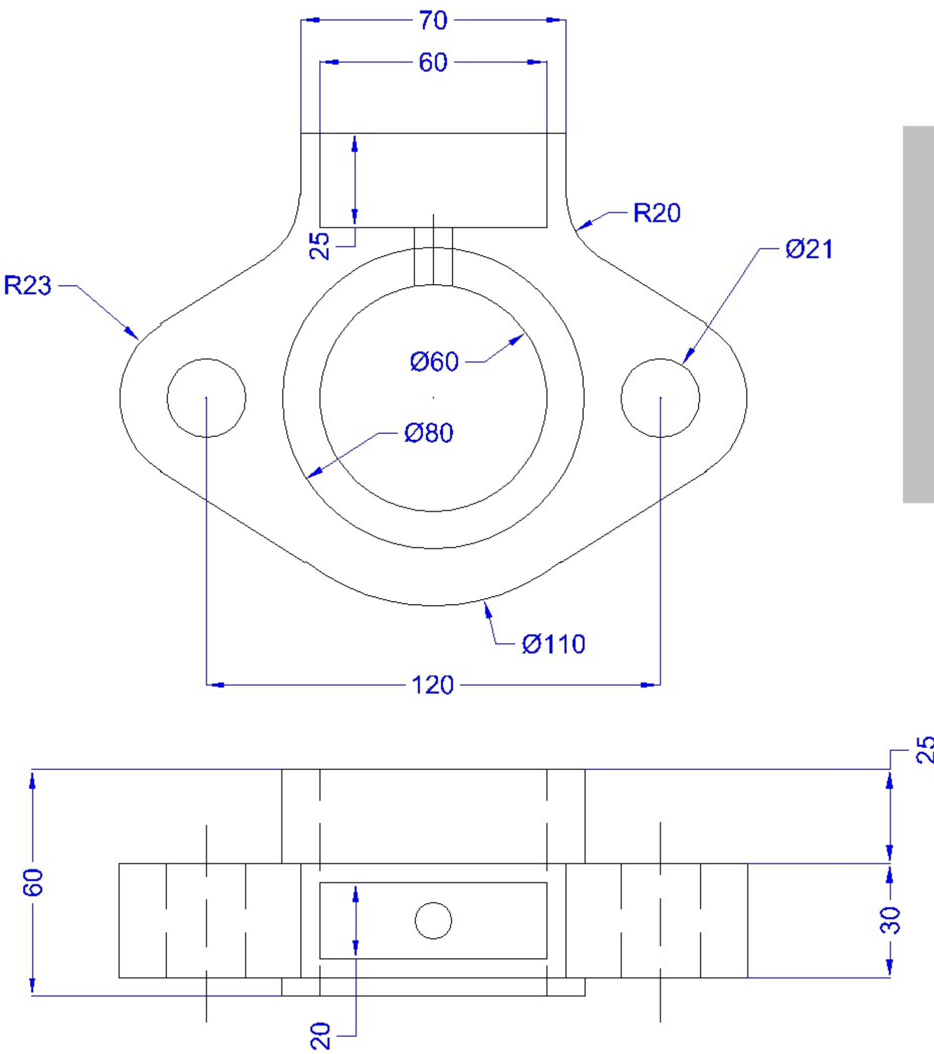

2.5
5
R42.8
15
180
10
20
146°
5
21.3
10
36.3
15
R10
10
20
15
15
50
100

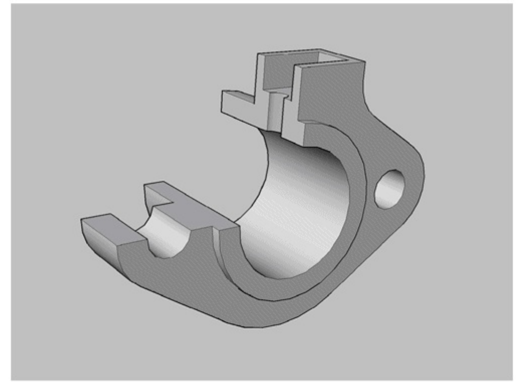


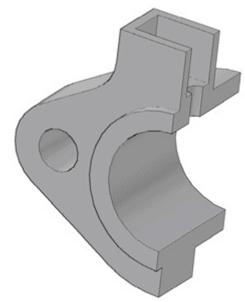


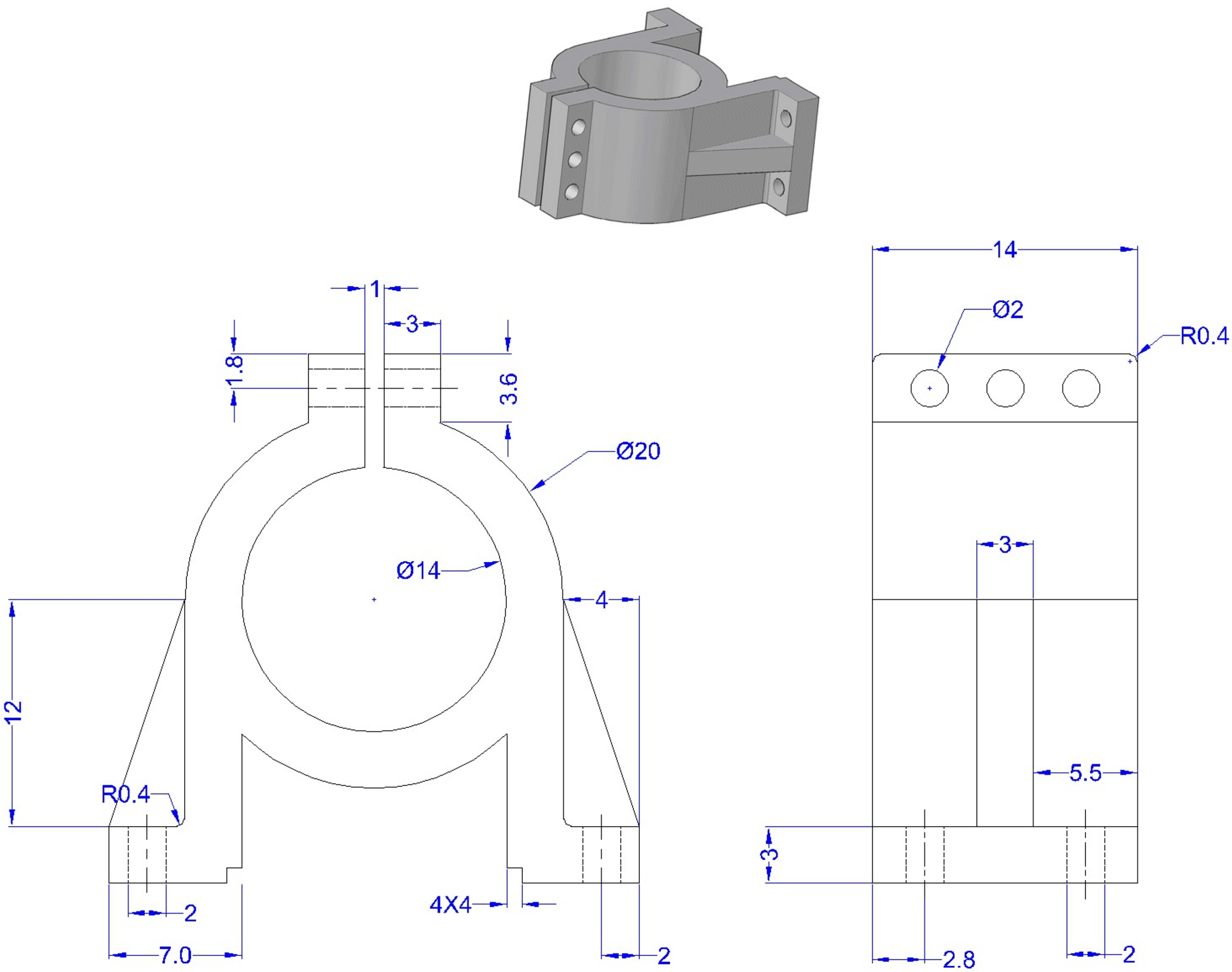
72
R30
24
Ø24
90
48
50
24
24
25
62
110
73
36
36
12
6
24
24


44.8
17.6
30.4
60°
188.0
Ø20.0
22.4
55.2
56
31.2
16.0
55.2
28.8
44.8
40
76.0
56
96


70
60
25
R20
Ø21
R23
Ø60
Ø80
Ø110
120
25
60
30
20

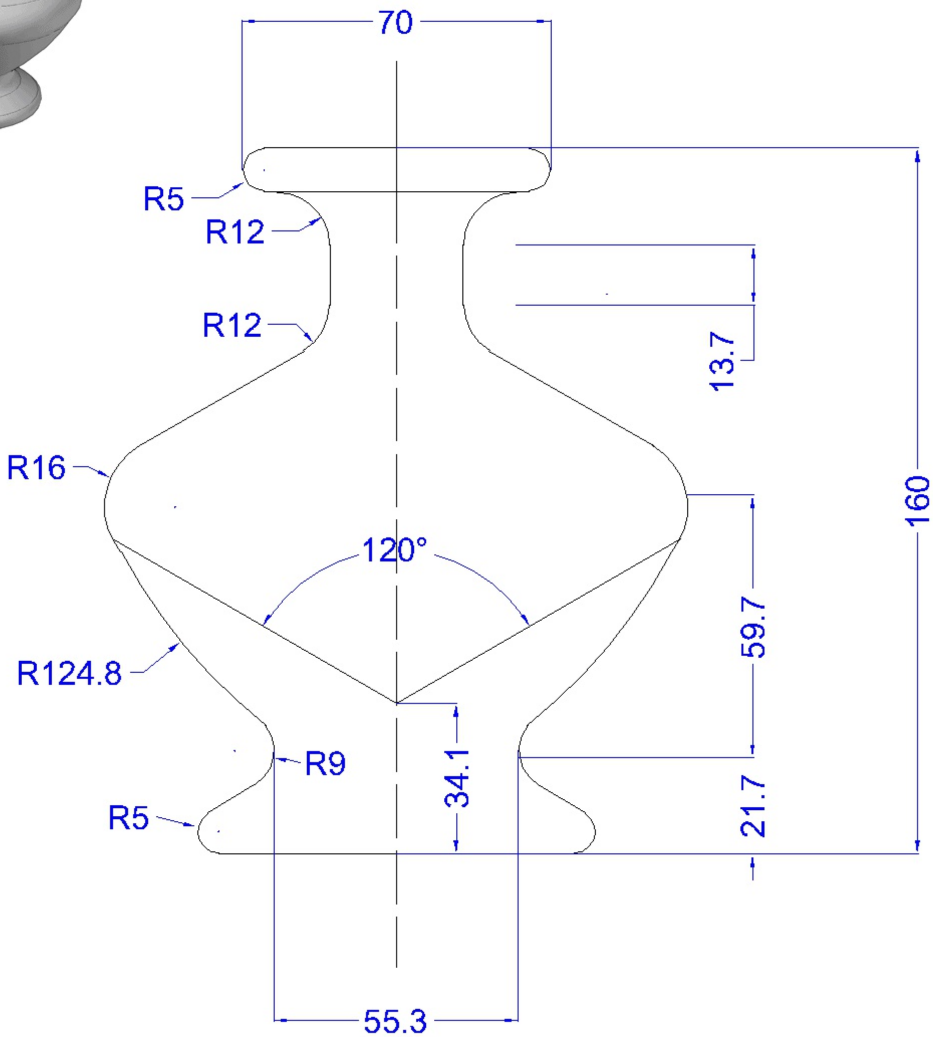


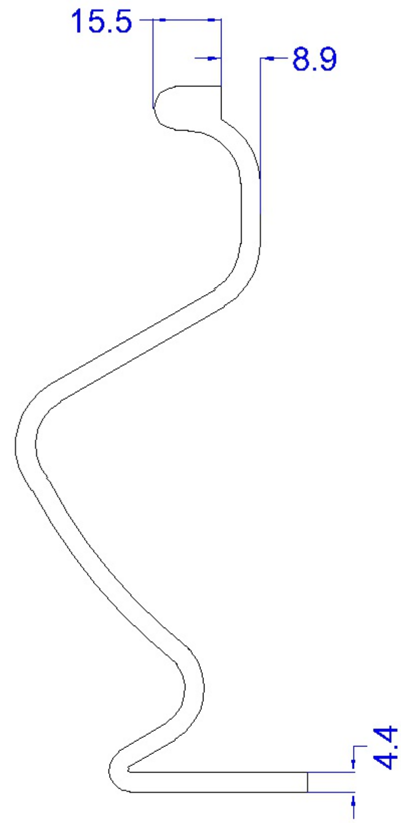


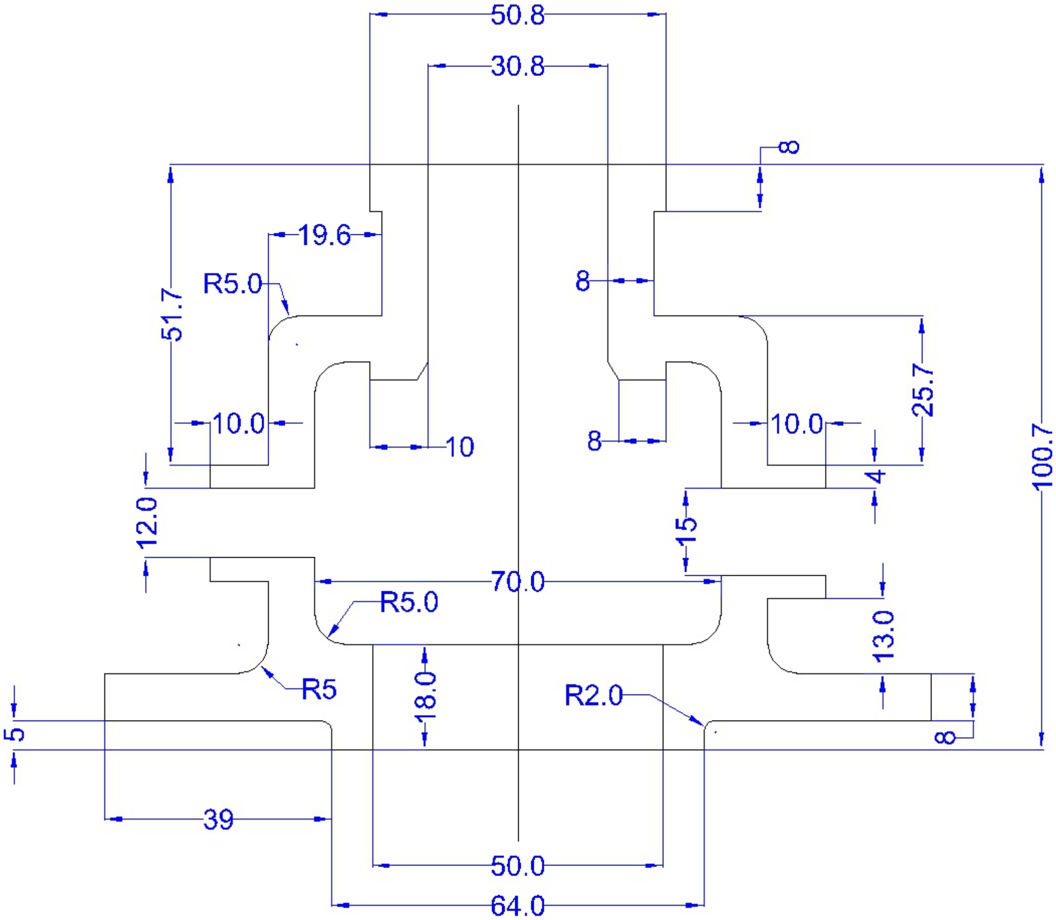


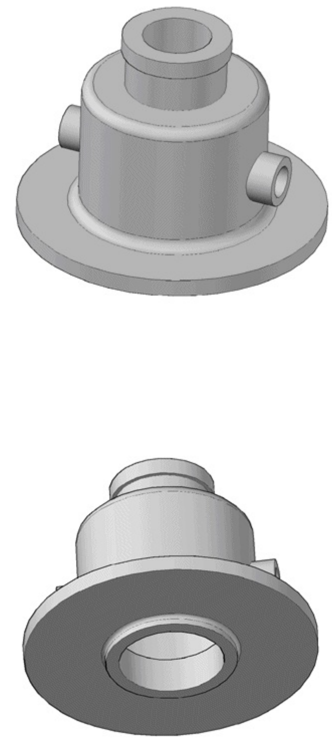
1
3
1.8
3.6
Ø20
Ø14
4
12
R0.4
2
7.0
4X4
2
14
Ø2
R0.4
3
5.5
3
2.8
2

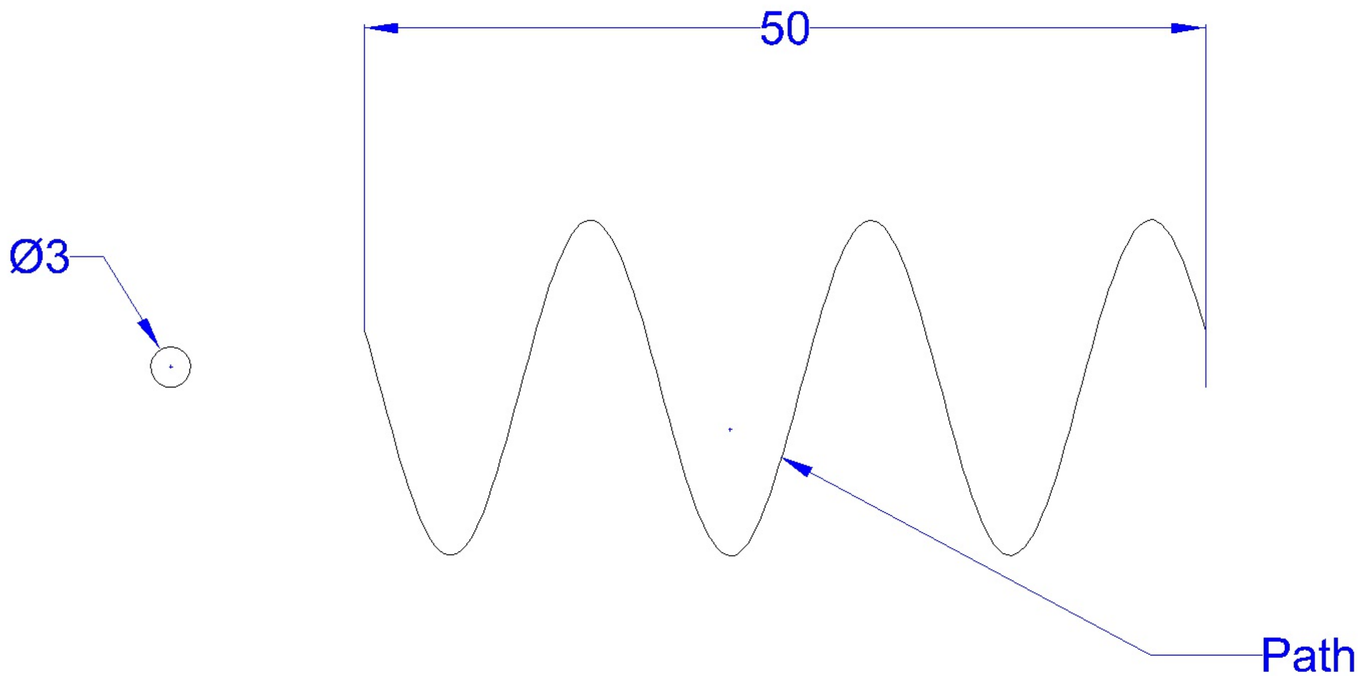


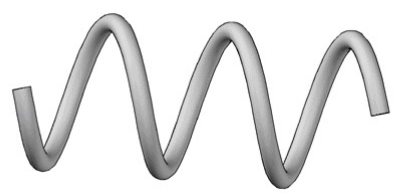

70
R5
R12
R12
13.7
R16
120°
R124.8
R9
R5
34.1
59.7
21.7
160
55.3

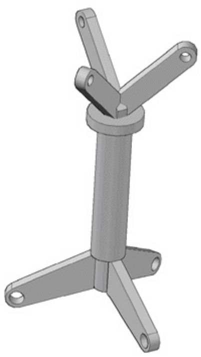

15.5
8.9
4.4

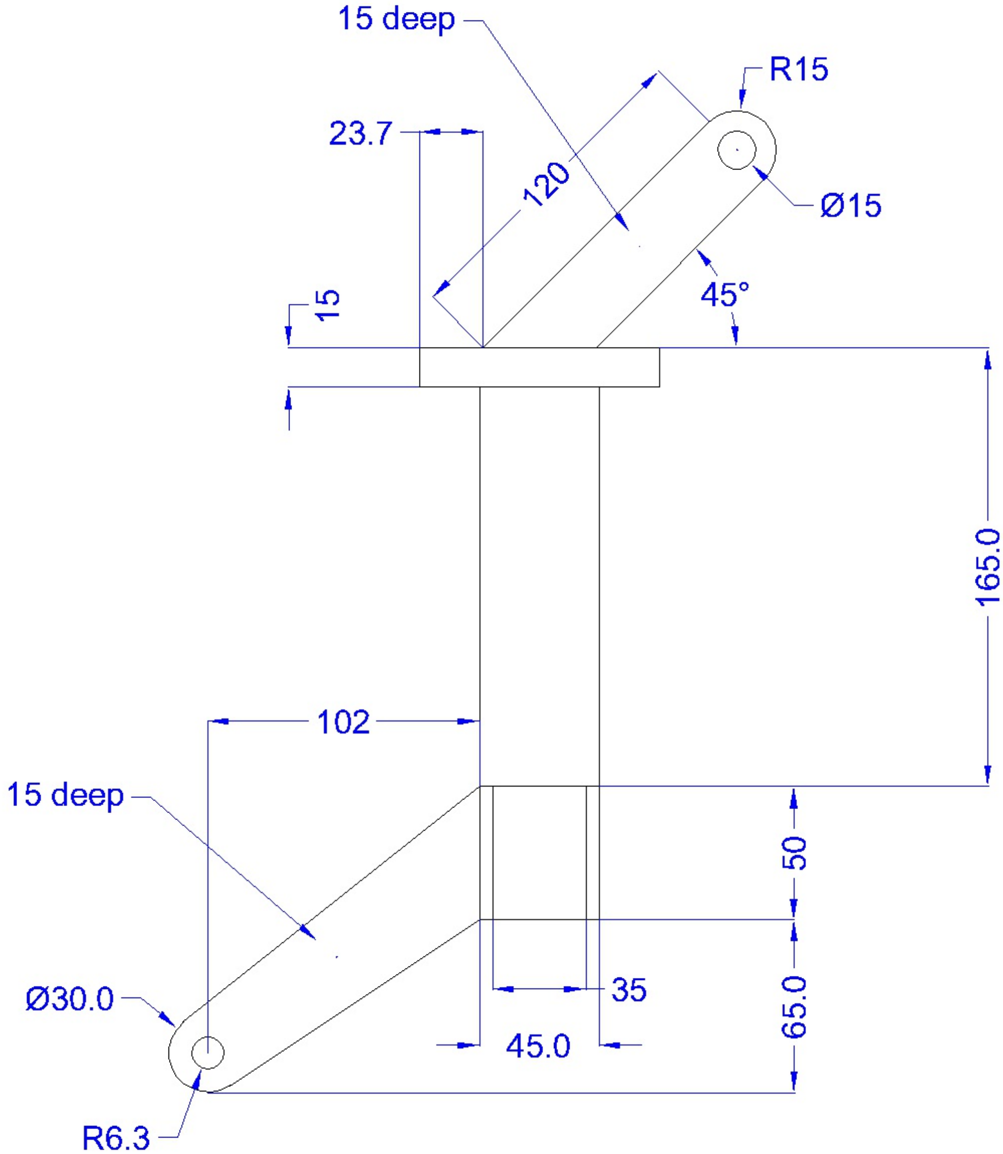

50.8
30.8
8
19.6
R5.0
51.7
8
25.7
10.0
10
8
10.0
4
100.7
12.0
15
70.0
R5.0
13.0
R5
18.0
R2.0
5
8
39
50.0
64.0



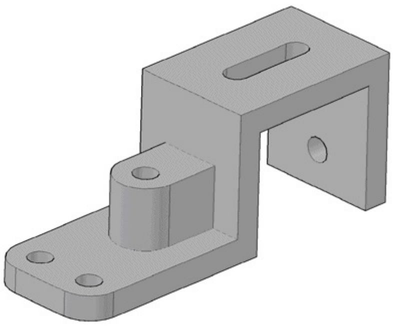

50
Ø3
Path

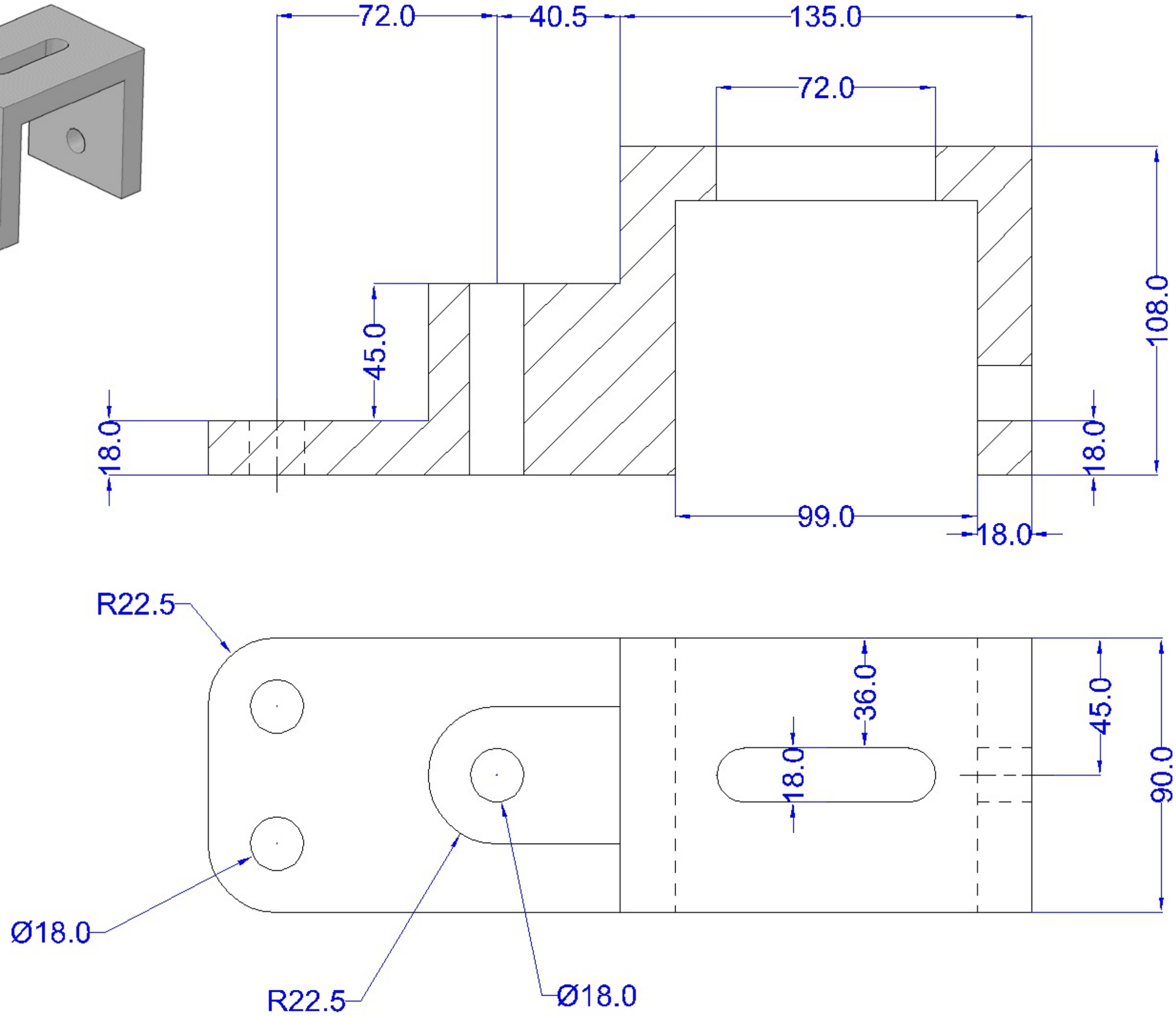




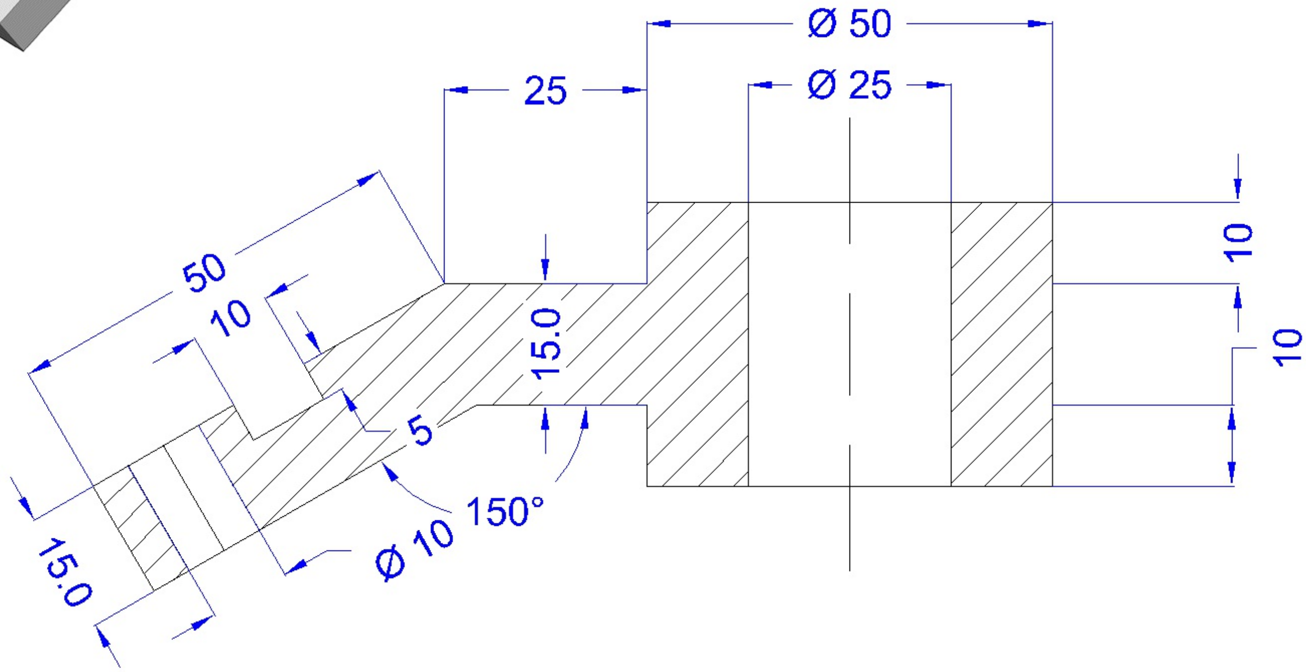


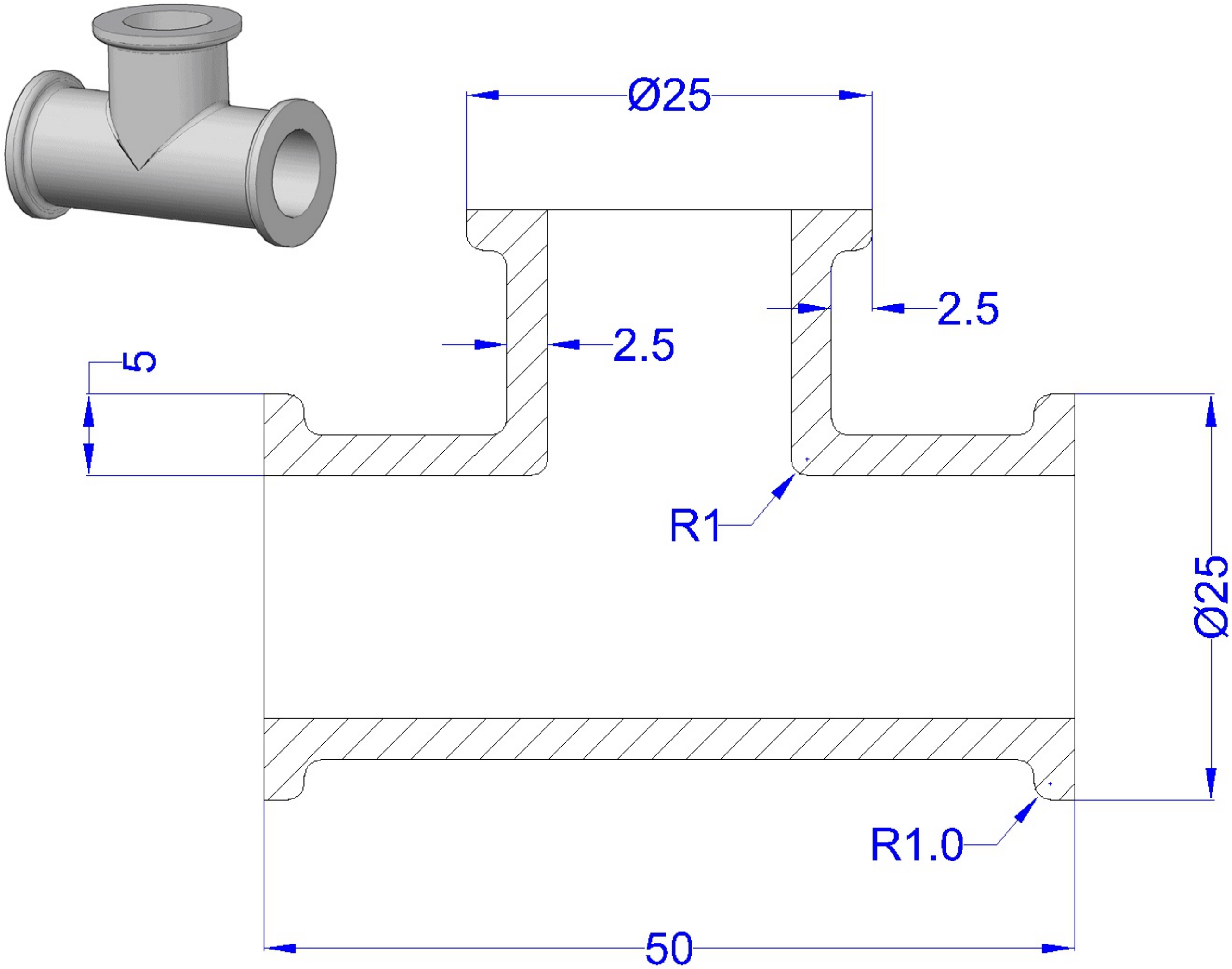
15 deep
R15
23.7
120
Ø15
15
45°
165.0
102
15 deep
50
Ø30.0
35
65.0
45.0
R6.3



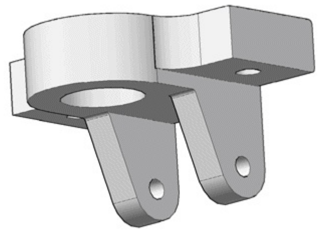

72.0
40.5
135.0
72.0
45.0
108.0
18.0
18.0
99.0
18.0
R22.5
36.0
45.0
18.0
90.0
Ø18.0
R22.5
Ø18.0

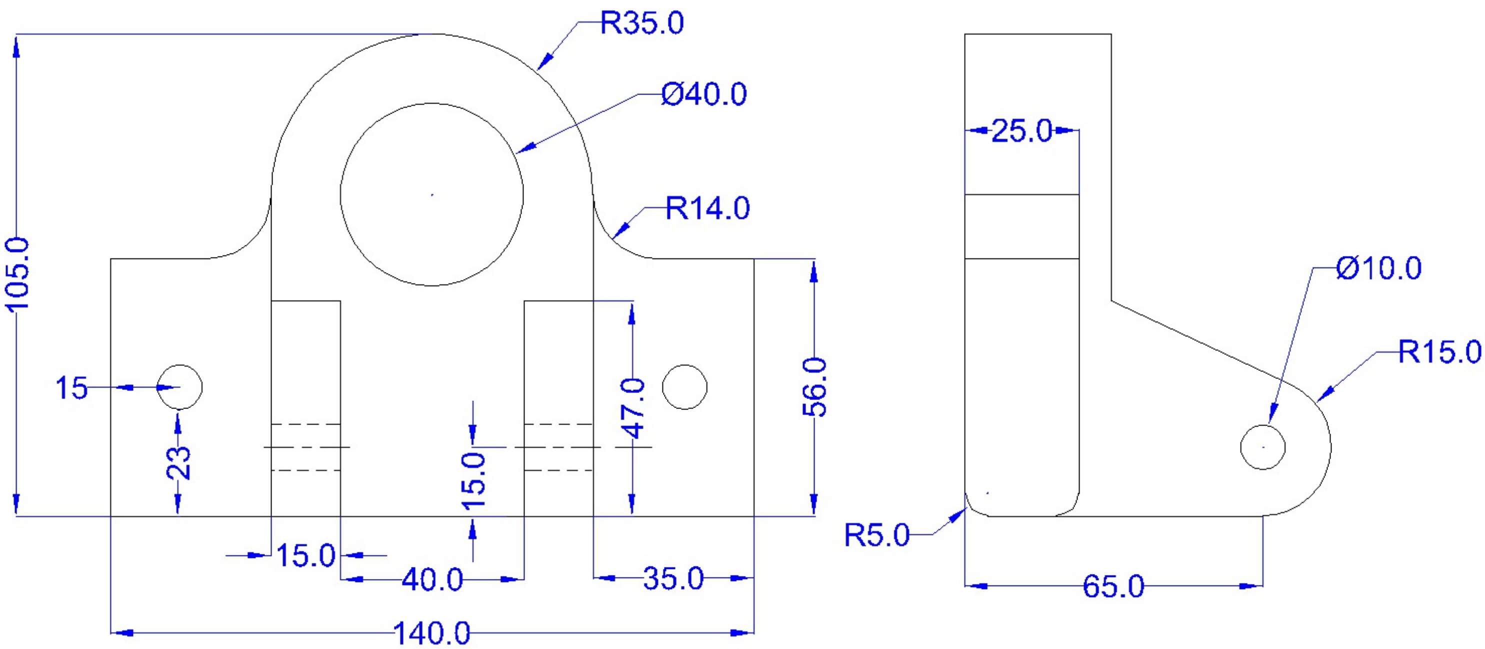


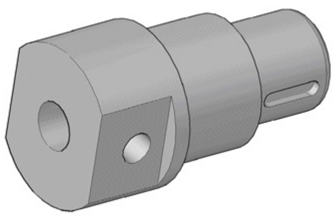

Ø 50
Ø 25
25
50
10
15.0
5
Ø 10
150°
15.0
10
10

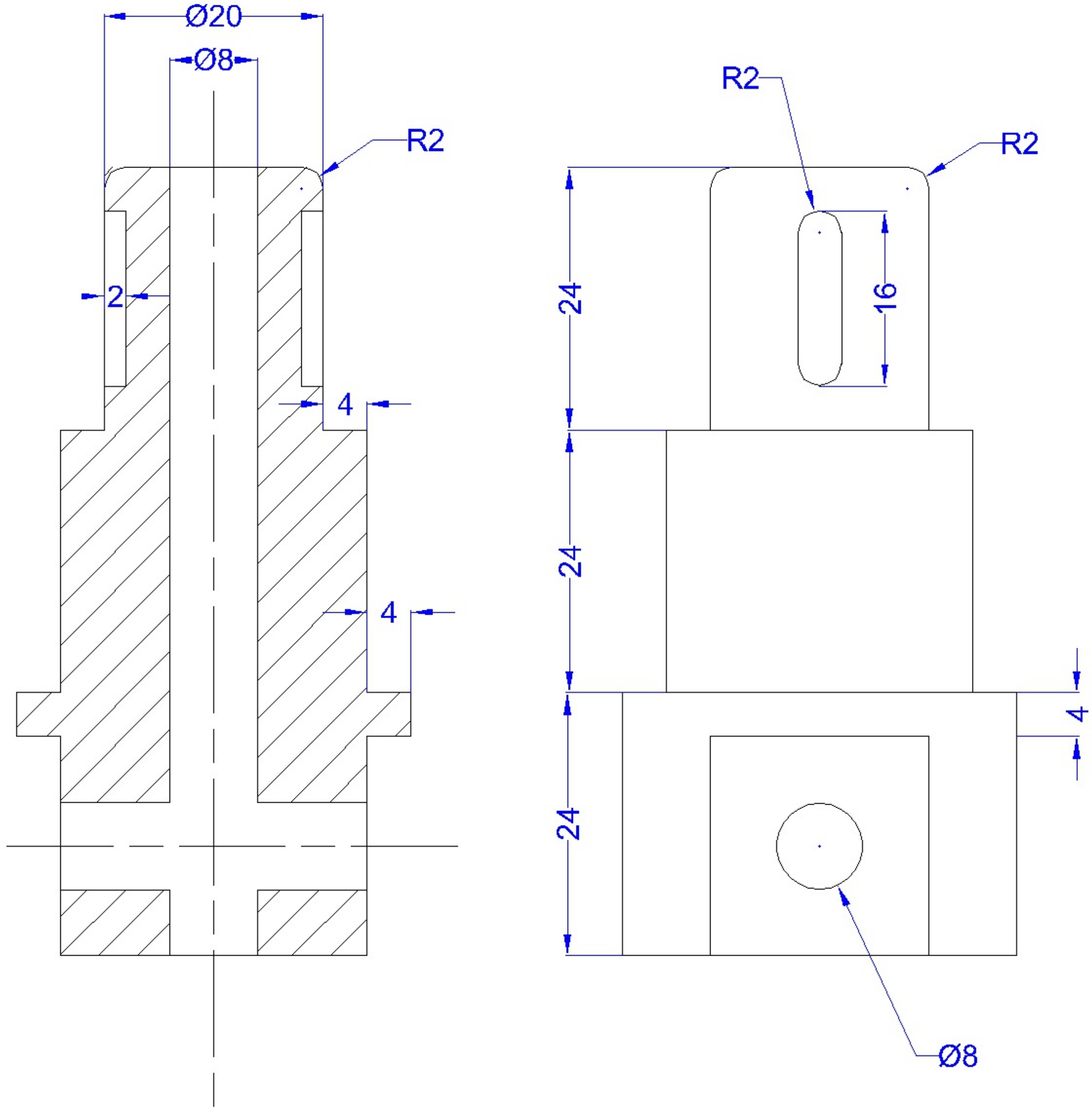


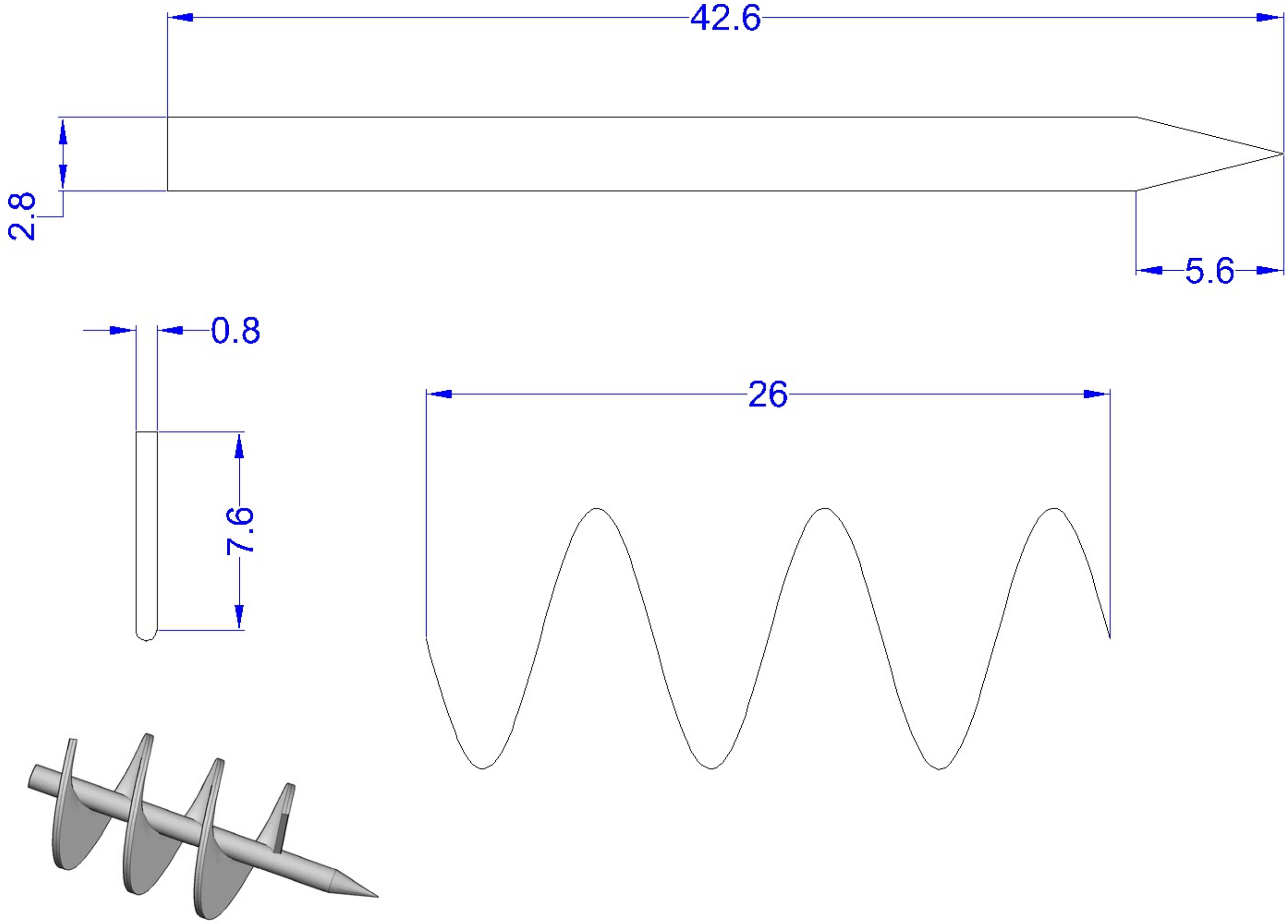
Ø25
2.5
2.5
5
R1
Ø25
R1.0
50



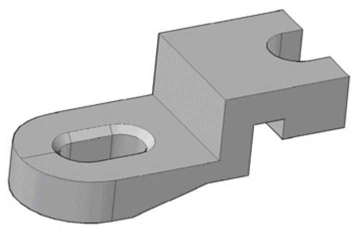

R35.0
Ø40.0
R14.0
105.0
15
23
47.0
15.0
56.0
15.0
40.0
35.0
140.0
25.0
Ø10.0
R15.0
R5.0
65.0

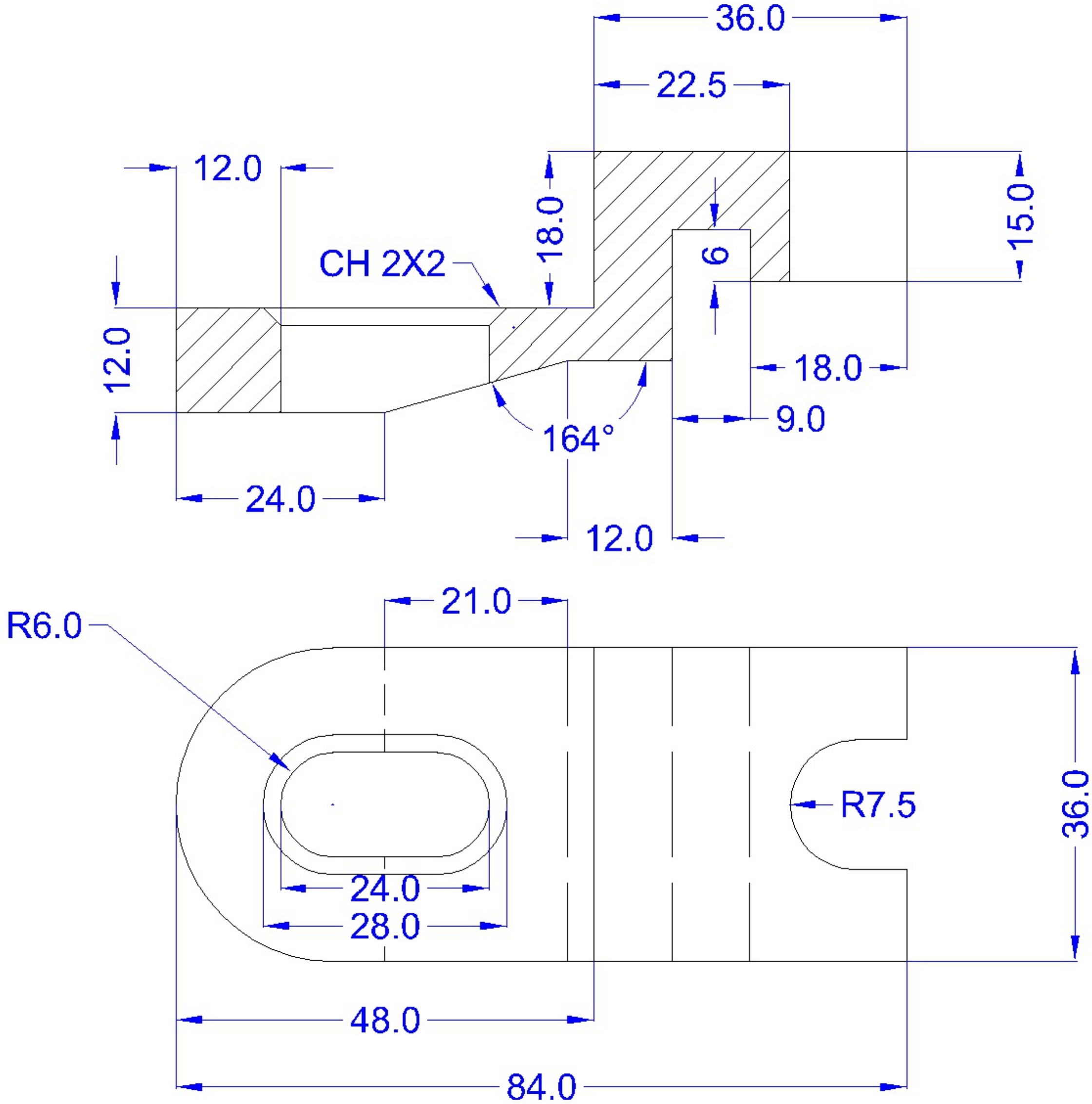


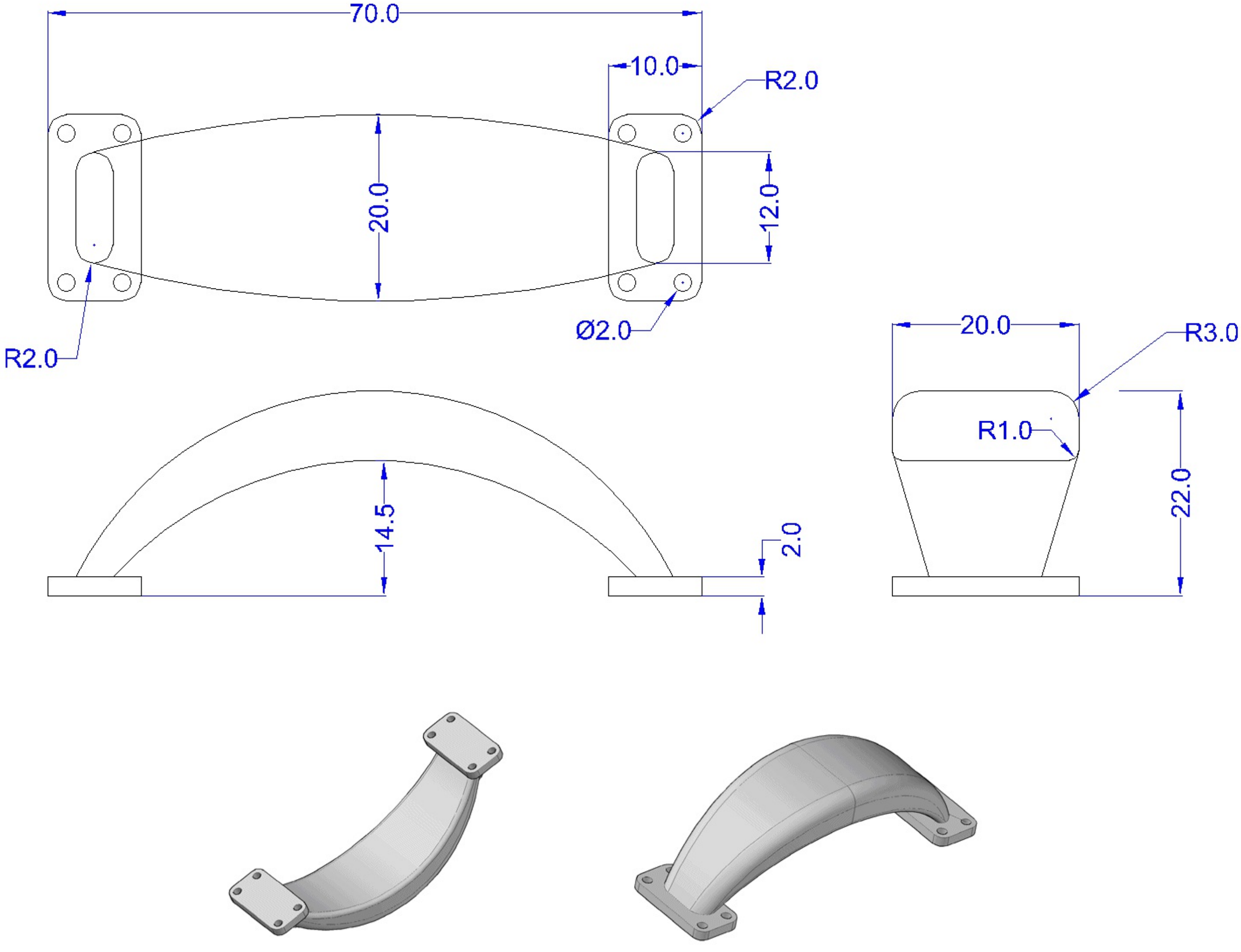

Ø20
Ø8
R2
2
4
4
R2
R2
16
24
24
24
4
Ø8



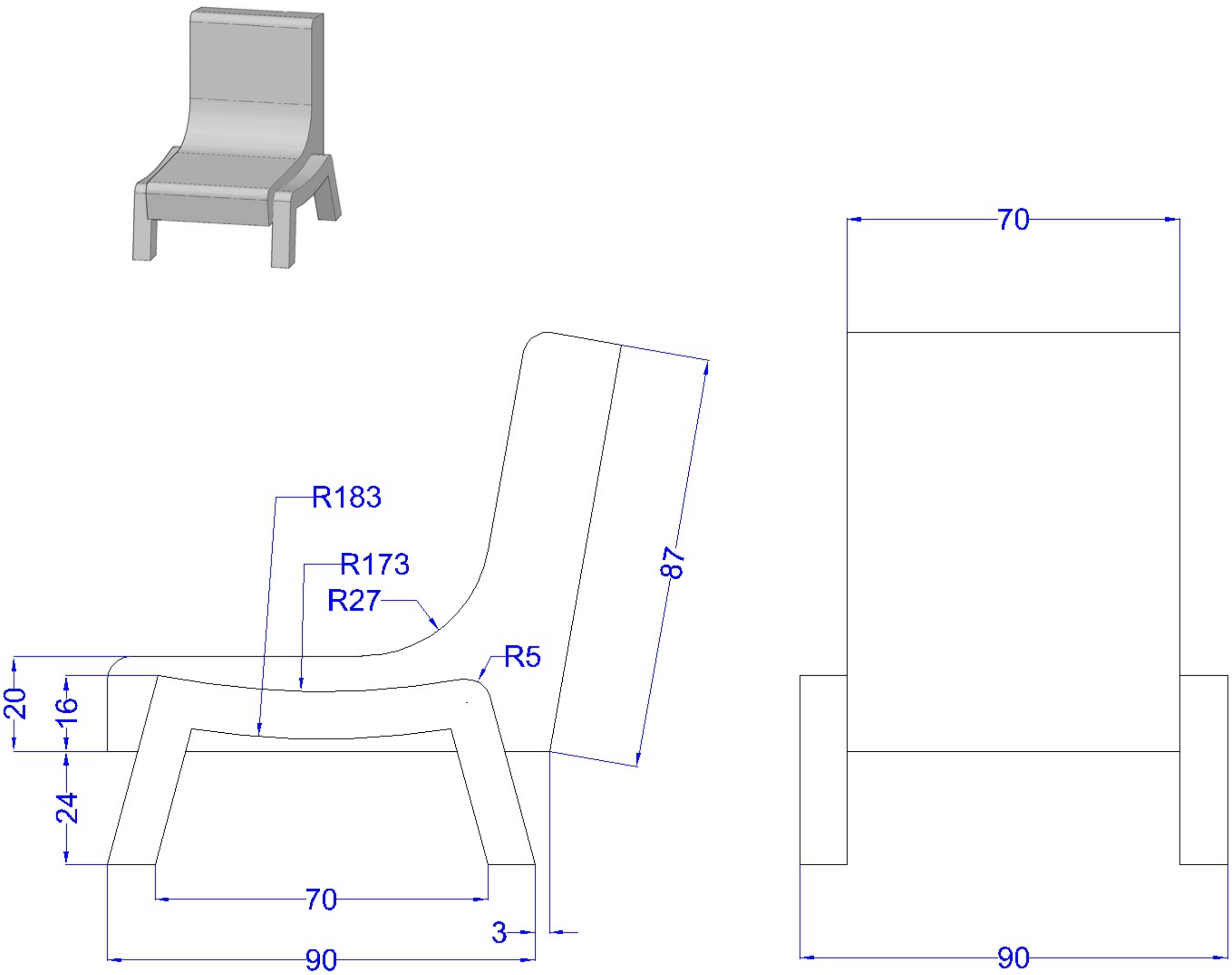
42.6
2.8
5.6
0.8
7.6
26



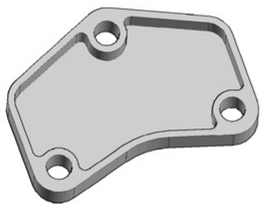

36.0
22.5
12.0
CH 2X2
18.0
15.0
6
12.0
18.0
9.0
164°
24.0
12.0
21.0
R6.0
R7.5
36.0
24.0
28.0
48.0
84.0

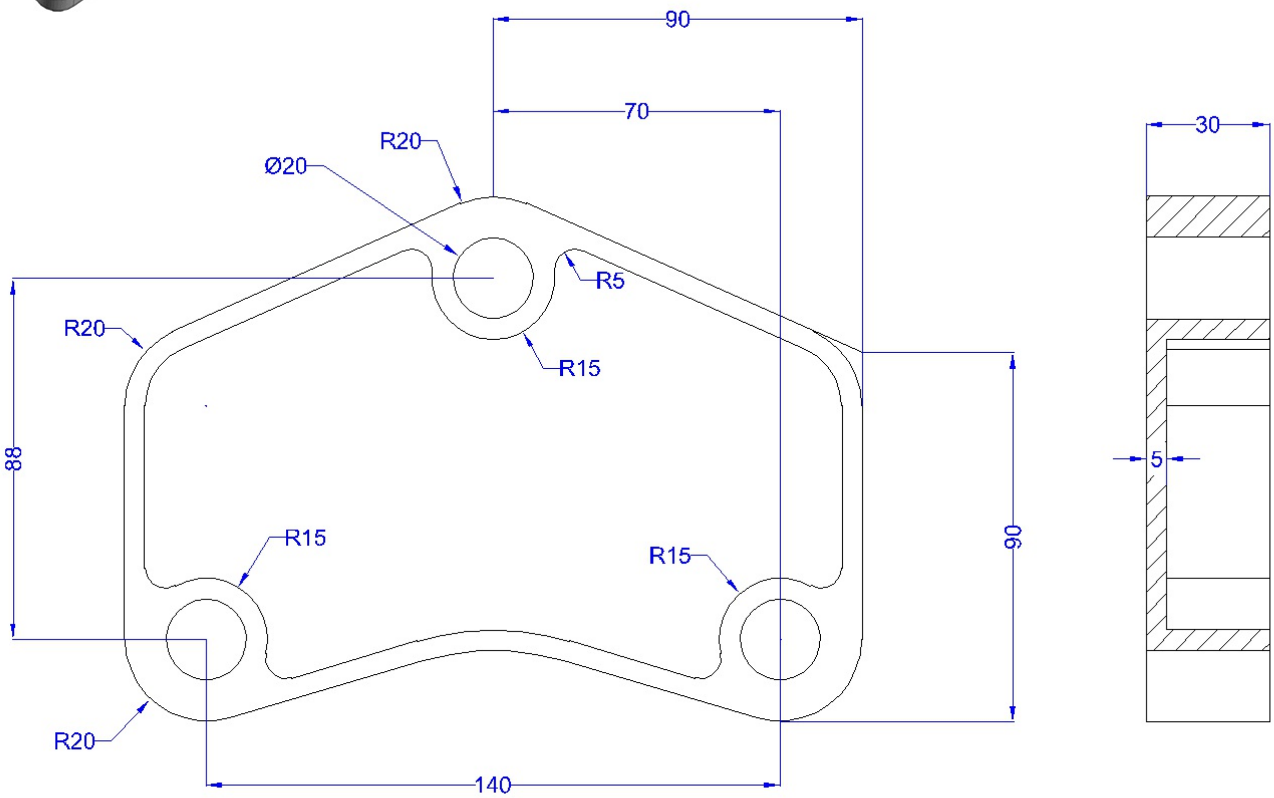


70.0
10.0
R2.0
20.0
12.0
R2.0
Ø2.0
20.0
R3.0
R1.0
14.5
2.0
22.0

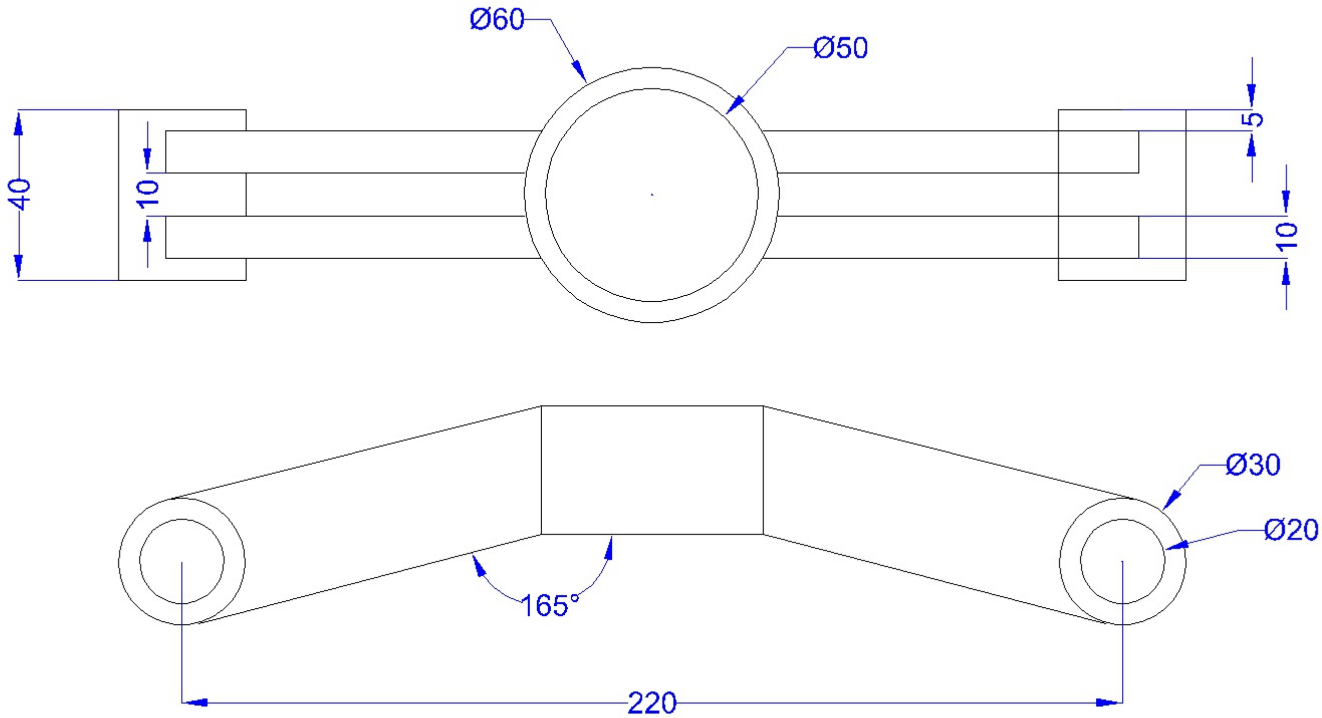


70
R183
R173
R27
R5
87
20
16
24
70
3
90
90

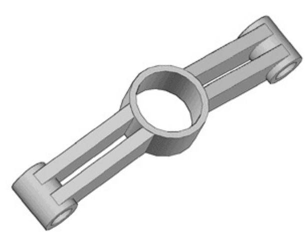


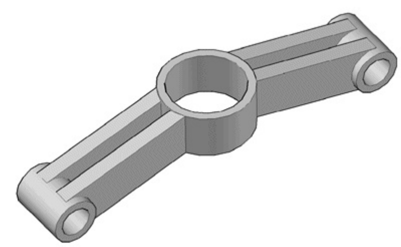


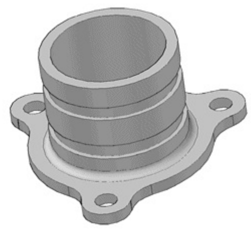
90
70
R20
Ø20
R5
R15
R20
88
R15
R15
90
R20
140
30
5

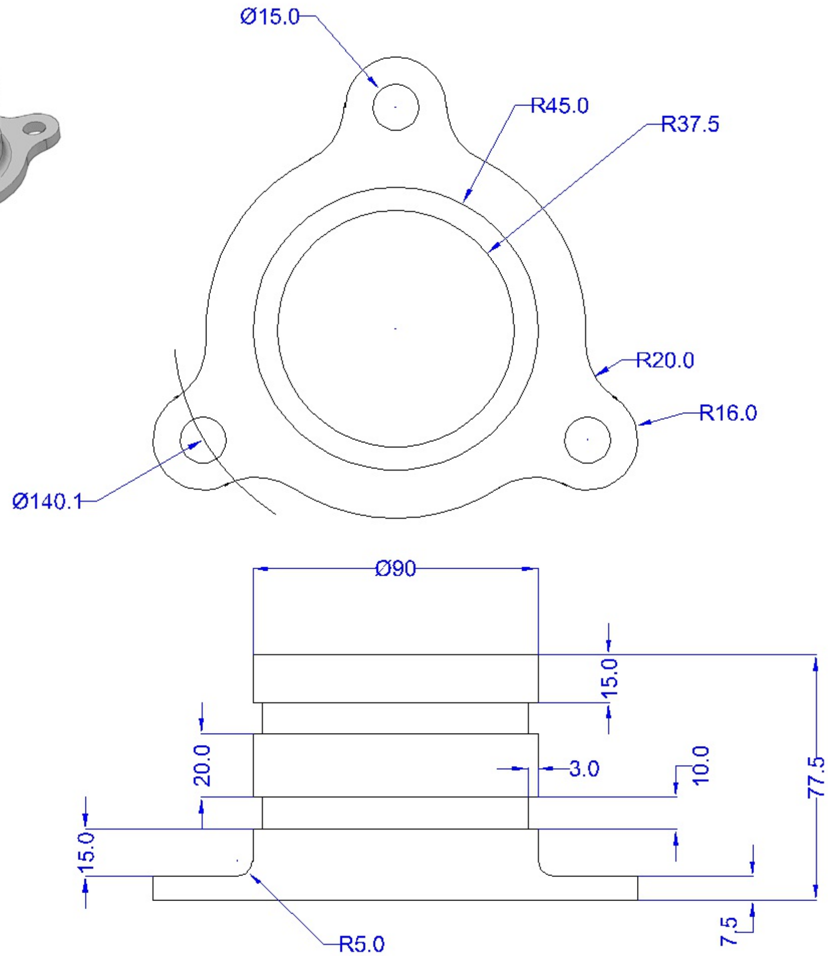


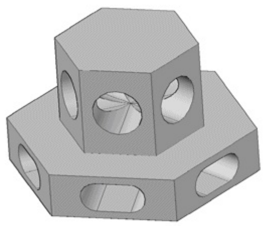
Ø60
Ø50
40
10
5
10
Ø30
Ø20
165°
220

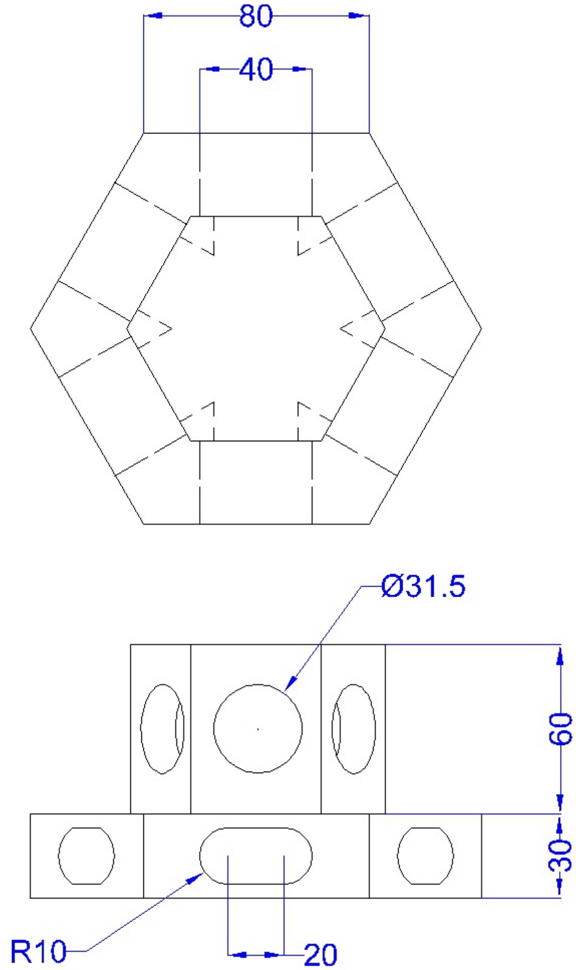


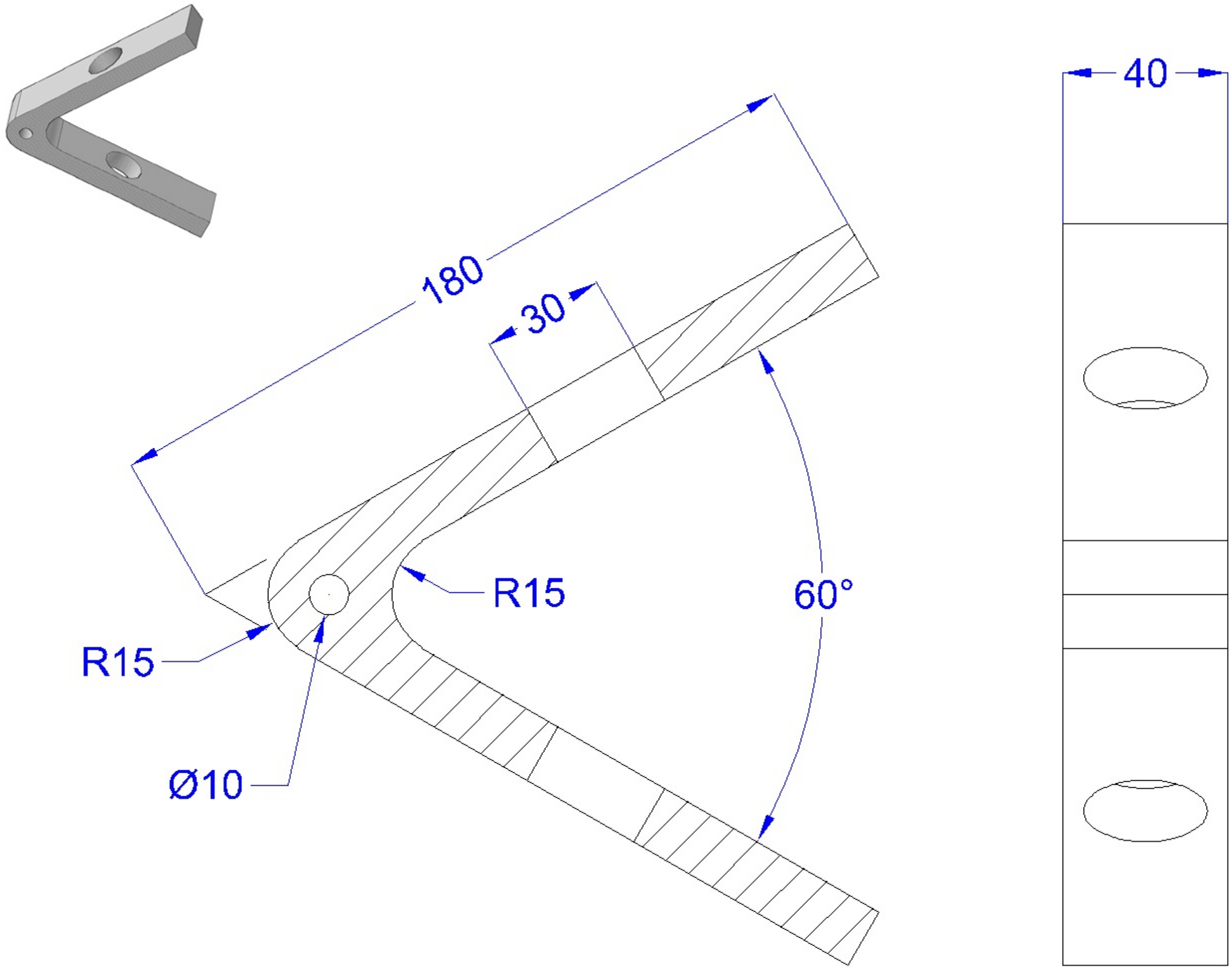




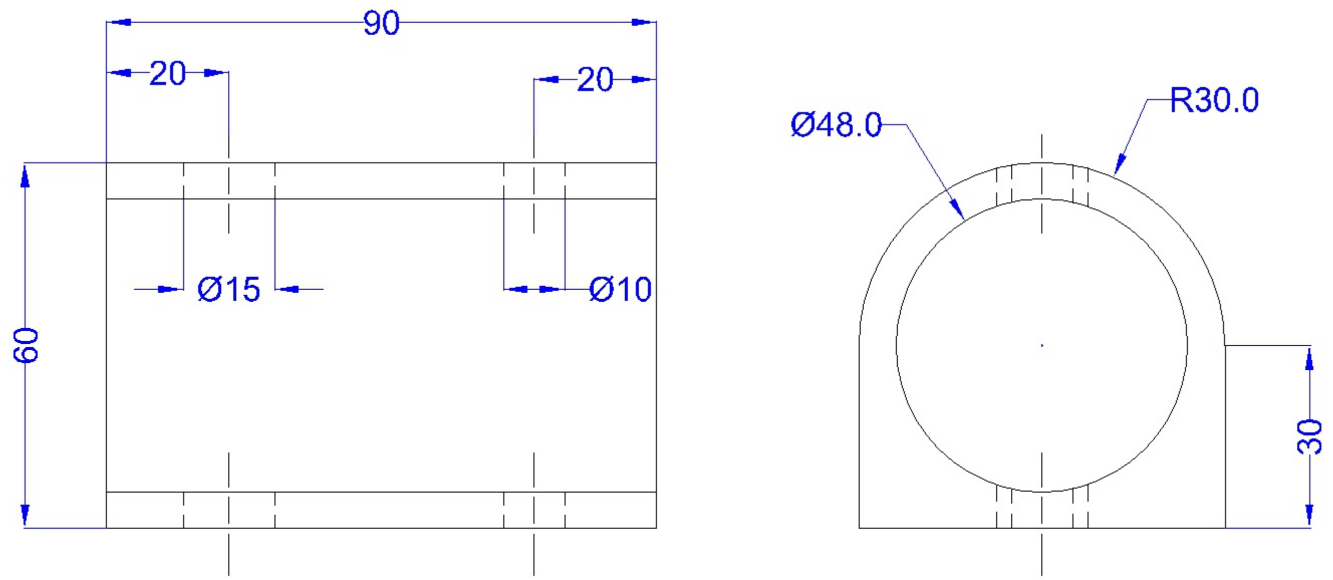

Ø15.0
R45.0
R37.5
R20.0
R16.0
Ø140.1
Ø90
15.0
20.0
3.0
10.0
77.5
15.0
R5.0
7.5

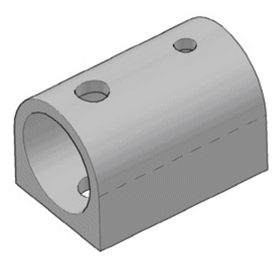


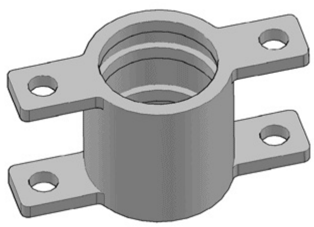

80
40
Ø31.5
60
30
R10
20

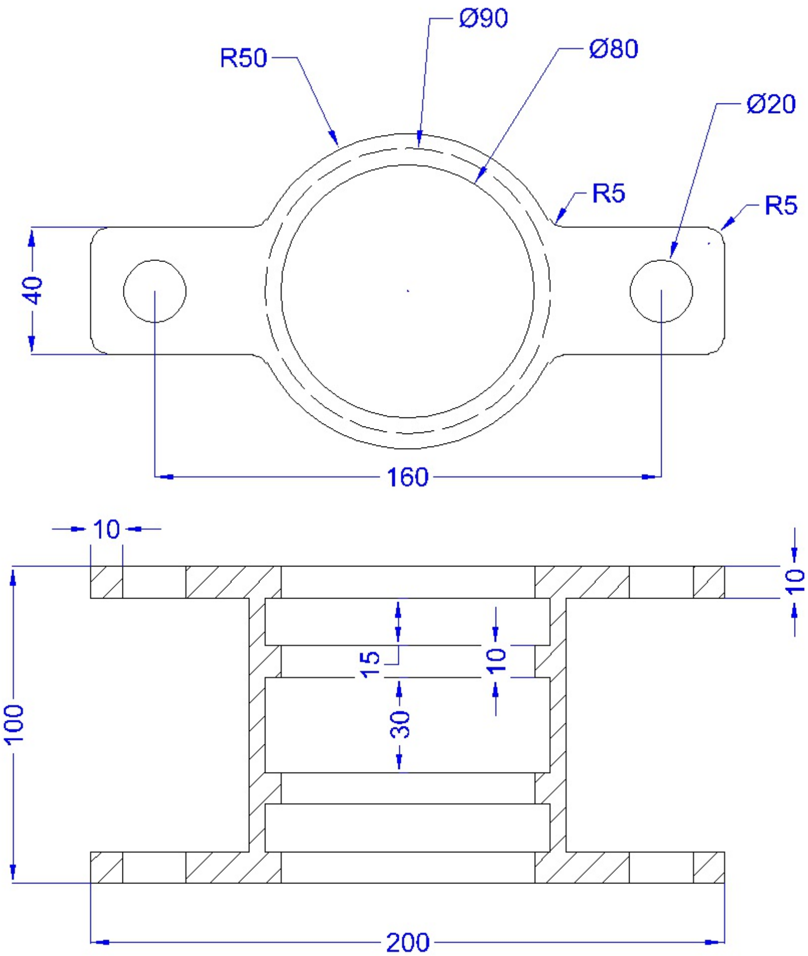


180
30
60°
R15
R15
Ø10
40

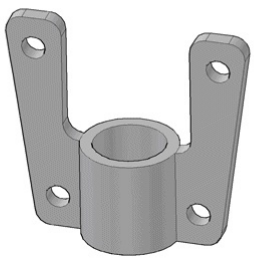

90
20
20
Ø15
Ø10
60
Ø48.0
R30.0
30

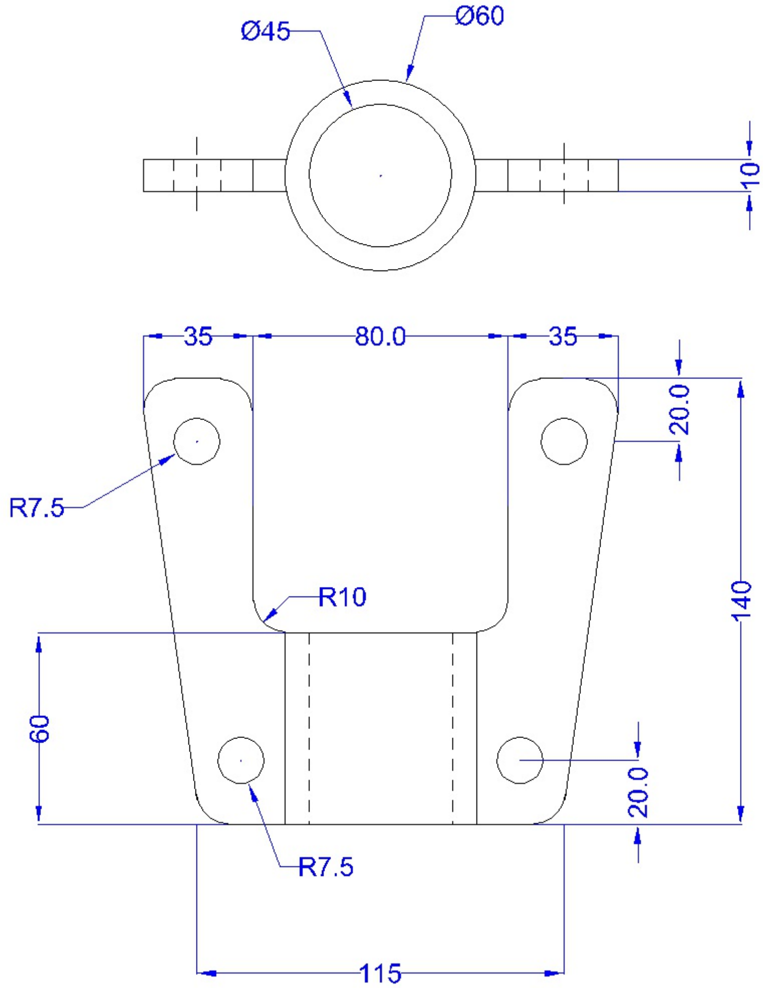




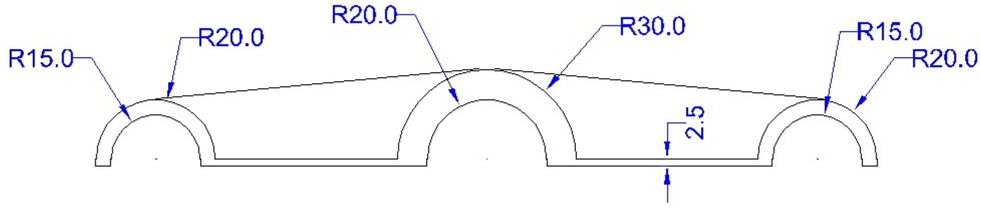


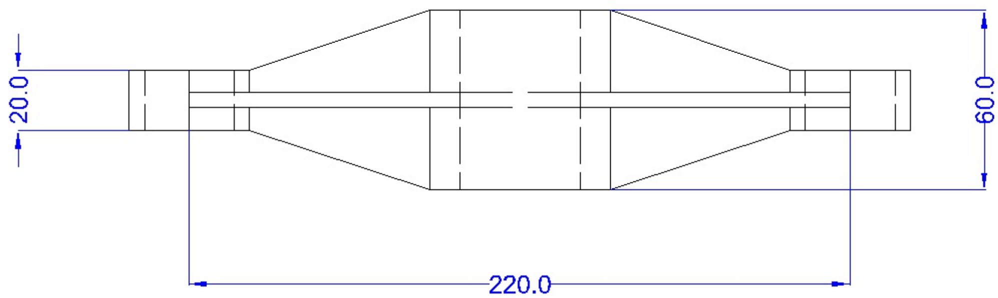
Ø90
Ø80
R50
Ø20
R5
R5
40
160
10
10
100
15
10
30
200

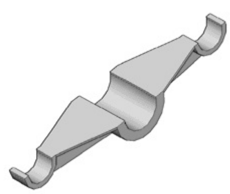


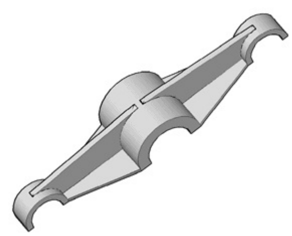


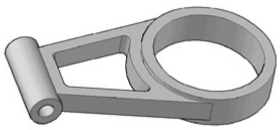
Ø45
Ø60
10
35
80.0
35
20.0
R7.5
140
R10
60
20.0
R7.5
115

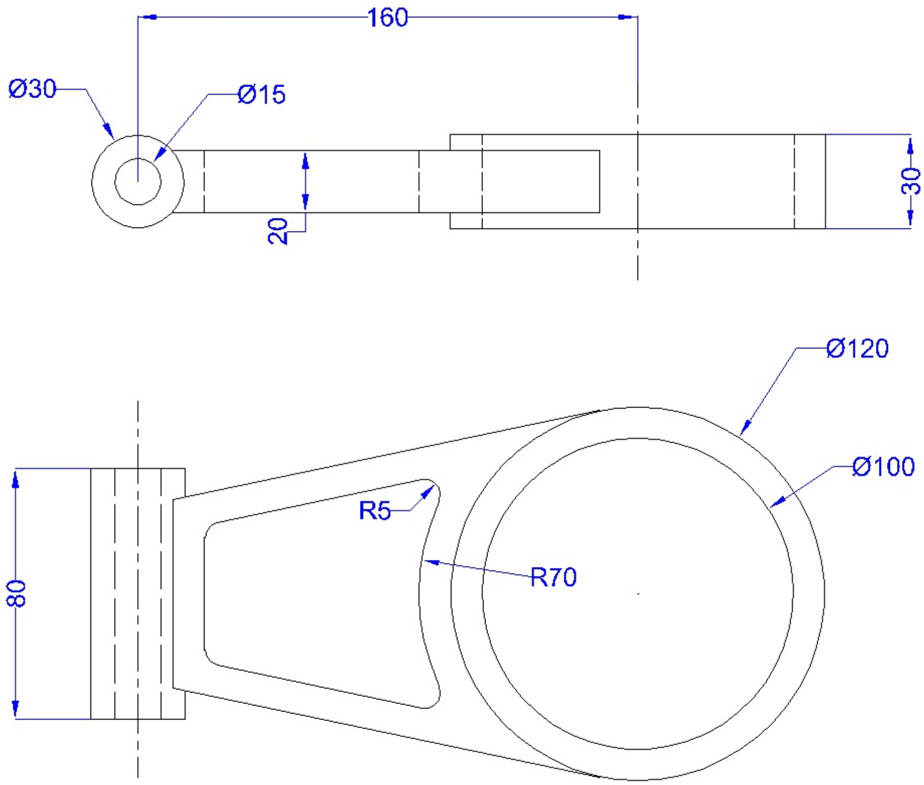

R15.0
R20.0
R20.0
R30.0
R15.0
R20.0
2.5

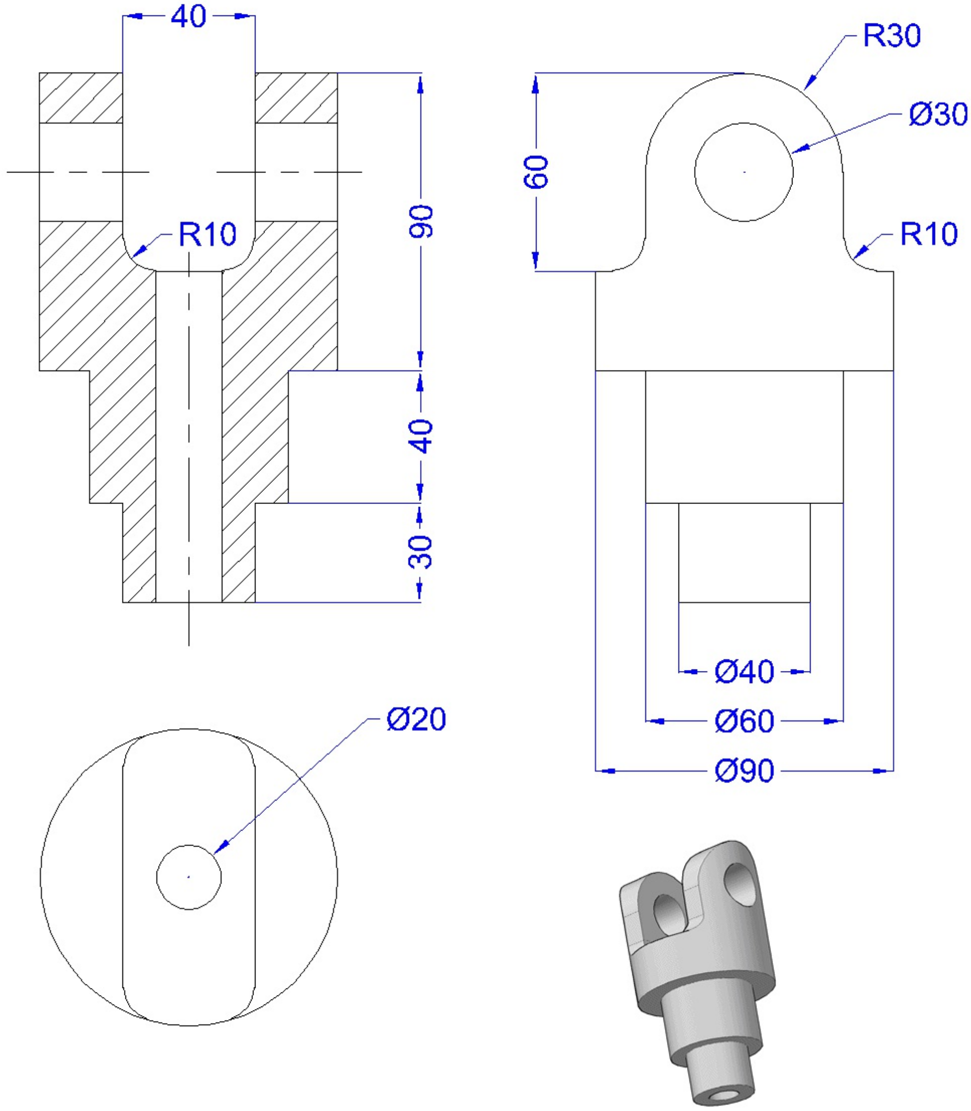

20.0
60.0
220.0

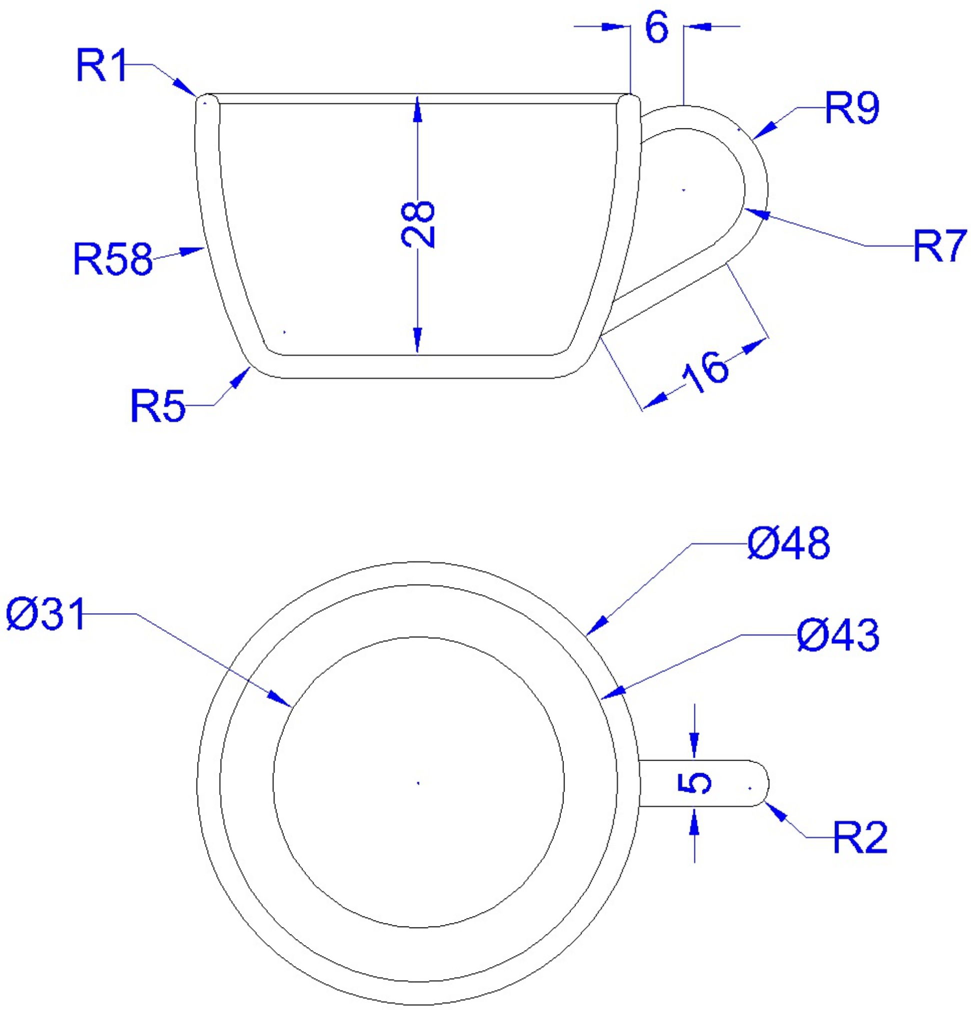






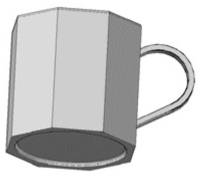

160
Ø30
Ø15
20
30
Ø120
Ø100
R5
R70
80

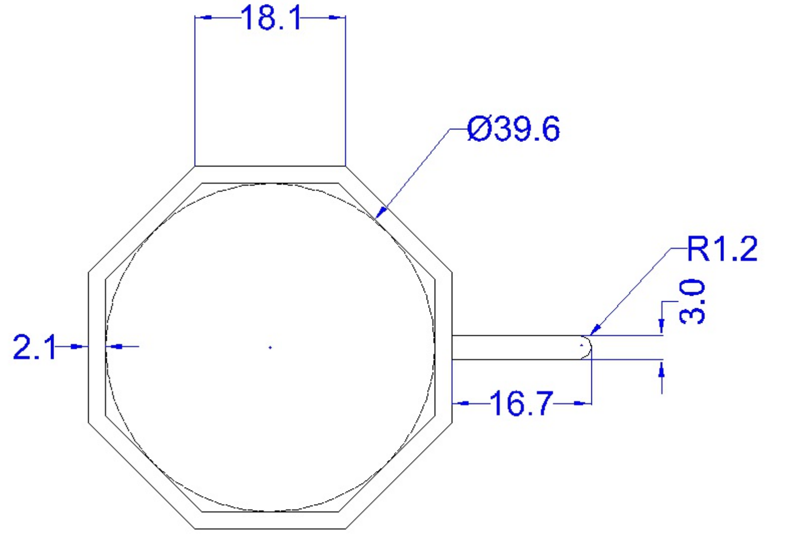

40
90
40
30
R10
Ø20
R30
Ø30
60
R10
Ø40
Ø60
Ø90

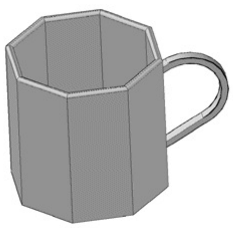

6
R1
R9
28
R58
R7
16
R5
Ø48
Ø31
Ø43
5
R2

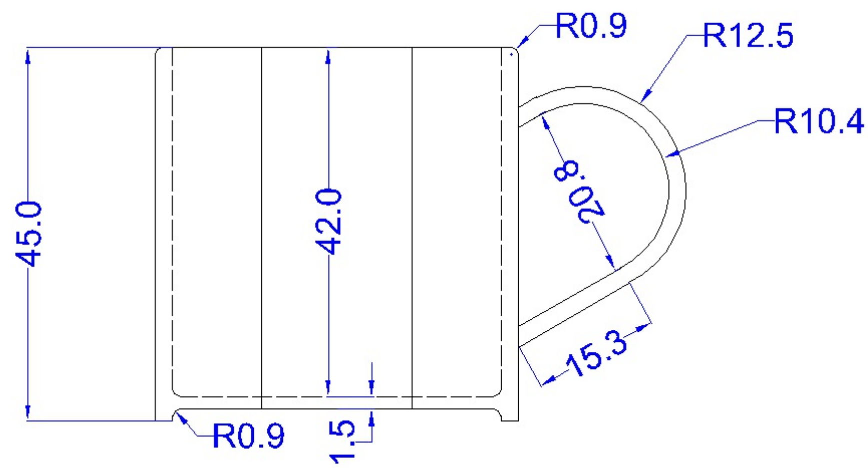


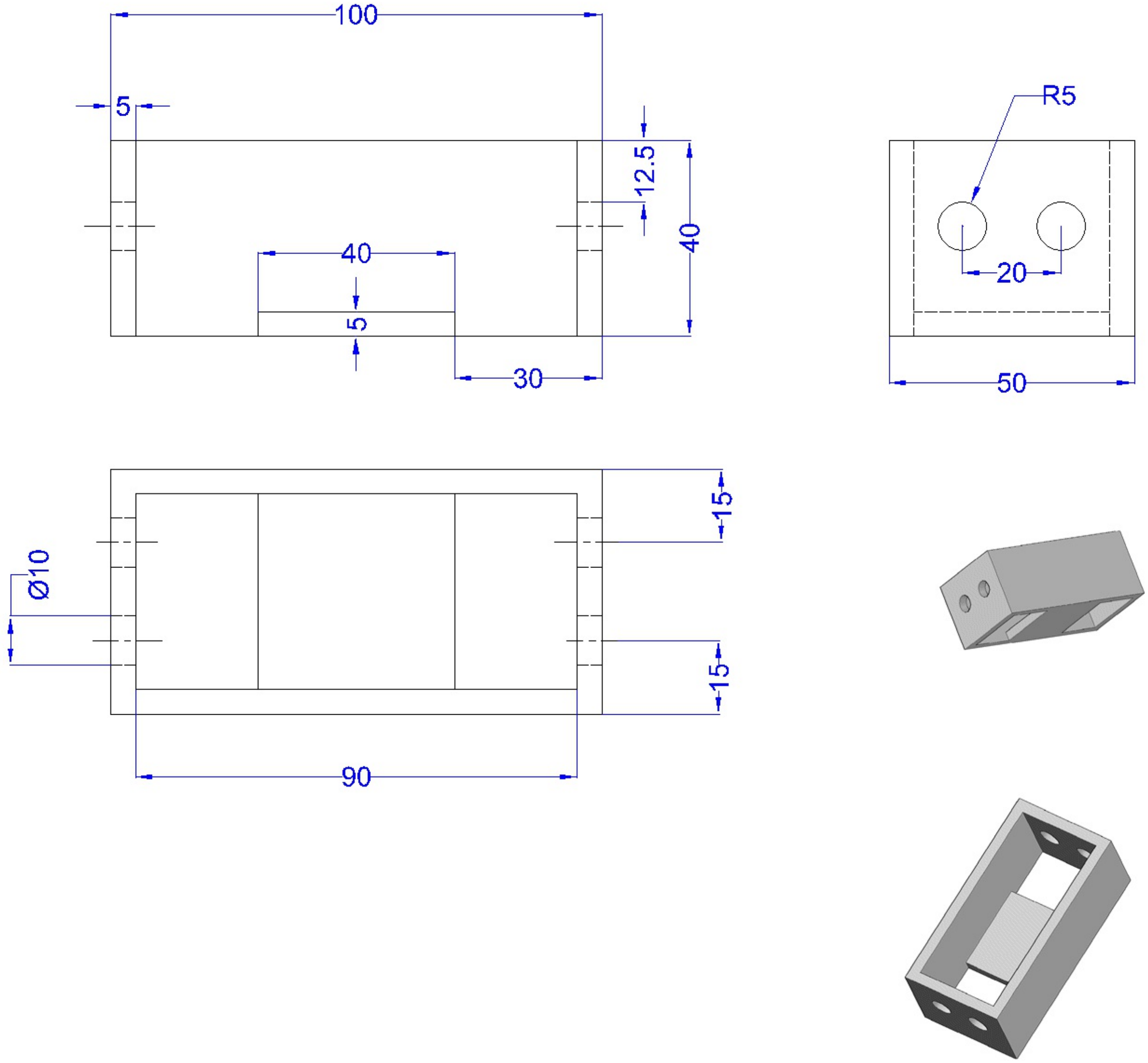





18.1
Ø39.6
R1.2
3.0
2.1
16.7




R0.9
R12.5
R10.4
45.0
42.0
20.8
15.3
R0.9
1.5


100
5
12.5
40
40
5
30
R5
20
50
15
Ø10
15
90

Thank You!

If you are this point then you most likely successfully completed all exercises in this eBook. We hope you enjoyed practicing with these 100 CAD exercises. Now, with the skills that you have learned, you will be able to tackle real-life CAD problems.

We suggest for you to join other CAD designers on Grabcad or our website at CAD Exercises. These places will give you the opportunity to see what others are doing in the field and will even give you the ability to download more CAD files. You can use these channels to further improve your skills.

Thanks again, and we wish you nothing less than success!